

Supporting Information

Table S1. Effects of *in ovo* and dietary xanthophylls on xanthophyll content in serum and liver of chicks¹

| Items | + <i>In ovo</i> | | - <i>In ovo</i> | | Pooled SEM | <i>P</i> value | | |
|------------------------------|--------------------|--------------------|-------------------|-------------------|------------|----------------|---------|----------------------|
| | + Diet | - Diet | + Diet | - Diet | | <i>In ovo</i> | Diet | <i>In ovo</i> × diet |
| Serum xanthophylls, µg/ml | 6.11 ^b | 2.44 ^a | 5.75 ^b | 1.95 ^a | 0.26 | 0.121 | < 0.000 | 0.797 |
| Liver xanthophylls, µg/g | | | | | | | | |
| 0 d | 38.23 ^a | 38.23 ^a | 6.69 ^b | 6.69 ^b | 3.15 | < 0.000 | | |
| 7 d | 8.68 ^b | 8.06 ^b | 2.51 ^a | 2.29 ^a | 0.50 | < 0.000 | 0.413 | 0.698 |
| 14 d | 7.88 ^a | 4.49 ^b | 4.17 ^b | 1.70 ^c | 0.30 | < 0.000 | < 0.000 | 0.140 |
| 21 d | 6.30 ^a | 2.07 ^b | 5.84 ^a | 1.75 ^b | 0.21 | 0.079 | < 0.000 | 0.739 |

¹Values were presented as means and pooled SEM, n = 6. Means in a row without a common letter differ ($P < 0.05$).

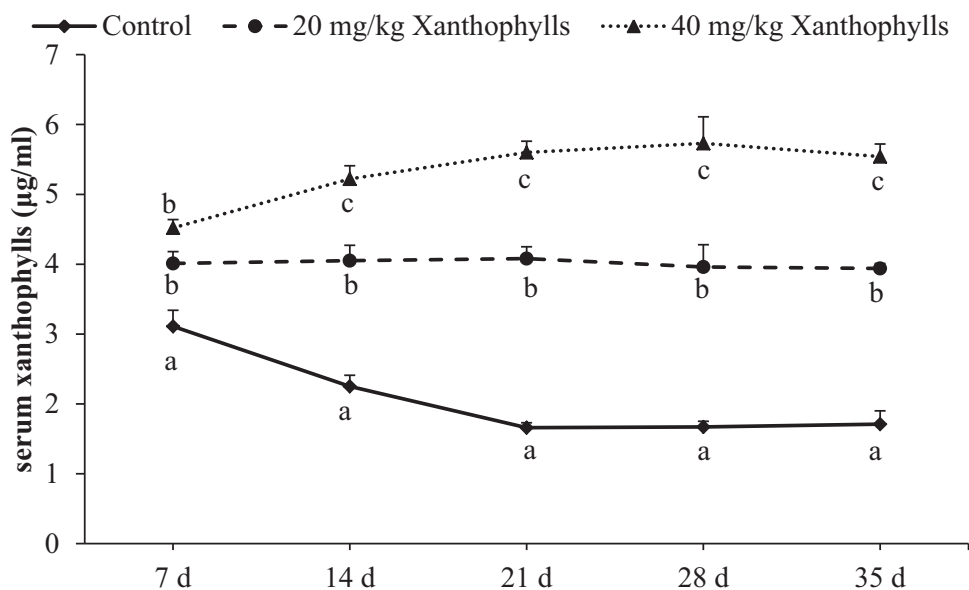


Fig. S1. Serum xanthophylls ($\mu\text{g/mL}$) of hens after dietary xanthophyll supplementation for 7, 14, 21, 28, and 35 d. Values were presented as means and pooled SEM, $n = 6$. Means in a row without a common letter differ ($P < 0.05$). P value and pooled SEM from one-way ANOVA: $P < 0.000$ for 7, 14, 21, 28, and 35 d; pooled SEM is 0.18, 0.19, 0.14, 0.29, and 0.16 for 7, 14, 21, 28, and 35 d, respectively.

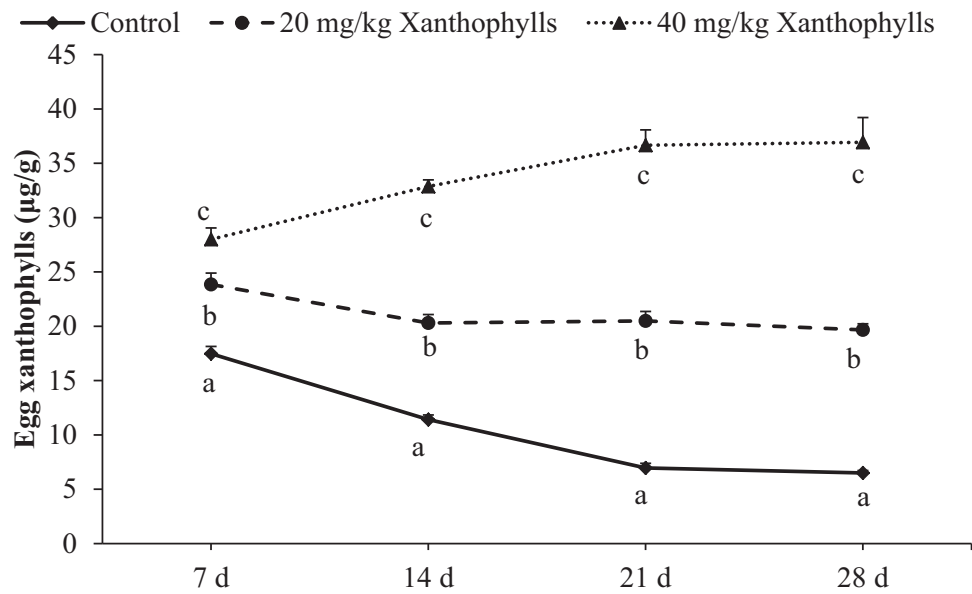


Fig. S2. Xanthophyll content ($\mu\text{g/g}$) in eggs after dietary xanthophyll supplementation for 7, 14, 21, and 28 d. Values were presented as means and pooled SEM, $n = 6$. Means in a row without a common letter differ ($P < 0.05$). P value and pooled SEM from one-way ANOVA: $P < 0.000$ for 7, 14, 21, and 28 d; pooled SEM is 0.94, 0.62, 0.99, and 1.37 for 7, 14, 21, and 28 d, respectively.