

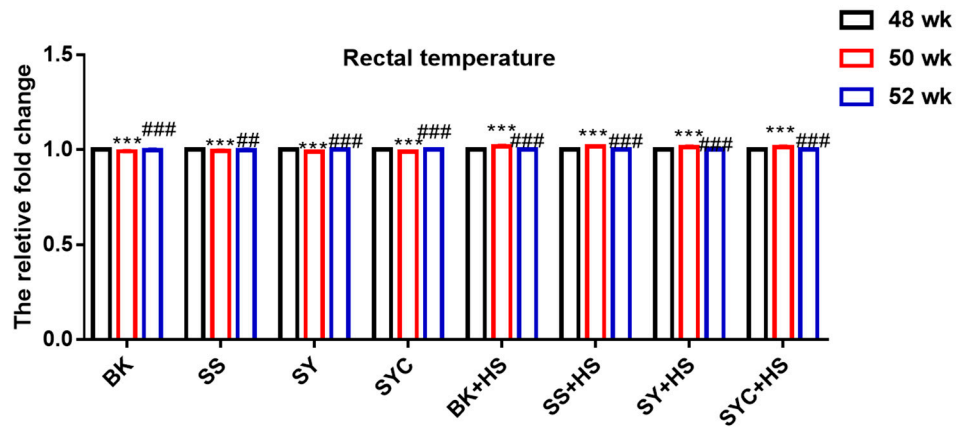


Figure S1. Changes in rectal temperature of laying hens of different periods. BK: basal diet, SS: sodium selenite, SY: selenium yeast, SYC: selenium-enriched yeast culture. +HS = under circulating high temperature (26 ± 2 °C~ 33 ± 2 °C). Significance compared with 48 wk, * $P < 0.05$, ** $P < 0.01$ and *** $P < 0.001$, # indicated that 52 wk was compared with 50 wk, # $P < 0.05$, ## $P < 0.01$, ### $P < 0.001$.

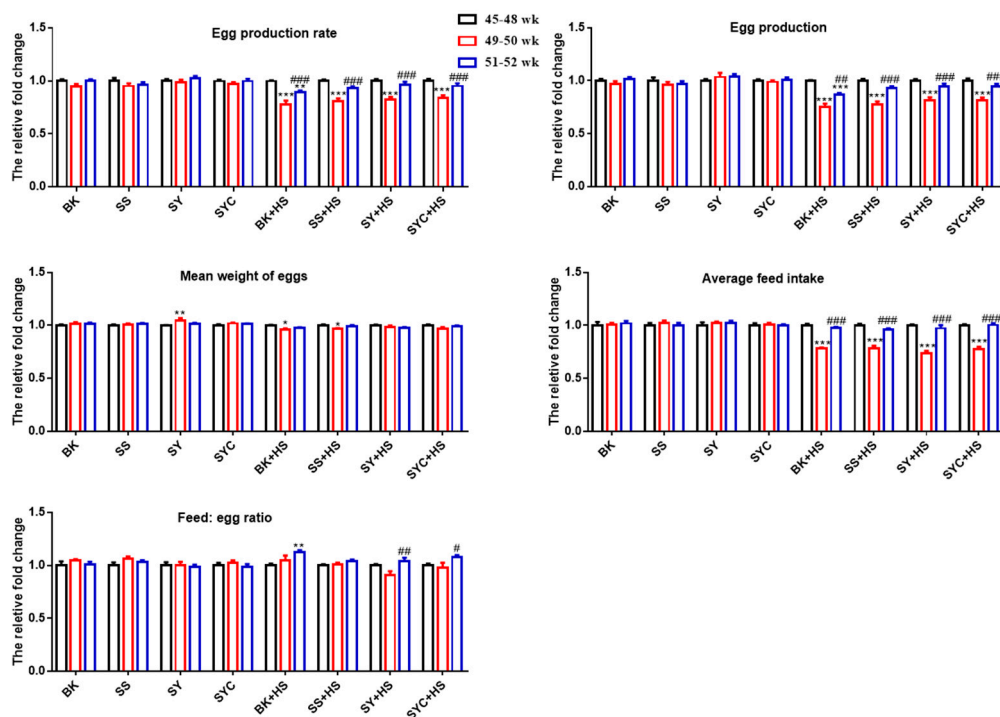


Figure S2. Changes in laying performance of laying hens of different periods. BK: basal diet, SS: sodium selenite, SY: selenium yeast, SYC: selenium-enriched yeast culture. +HS = under circulating high temperature (26 ± 2 °C~ 33 ± 2 °C). Significance compared with 45-48 wk, * $P < 0.05$, ** $P < 0.01$ and *** $P < 0.001$, # indicated that 51-52 wk was compared with 49-50 wk, # $P < 0.05$, ## $P < 0.01$, ### $P < 0.001$

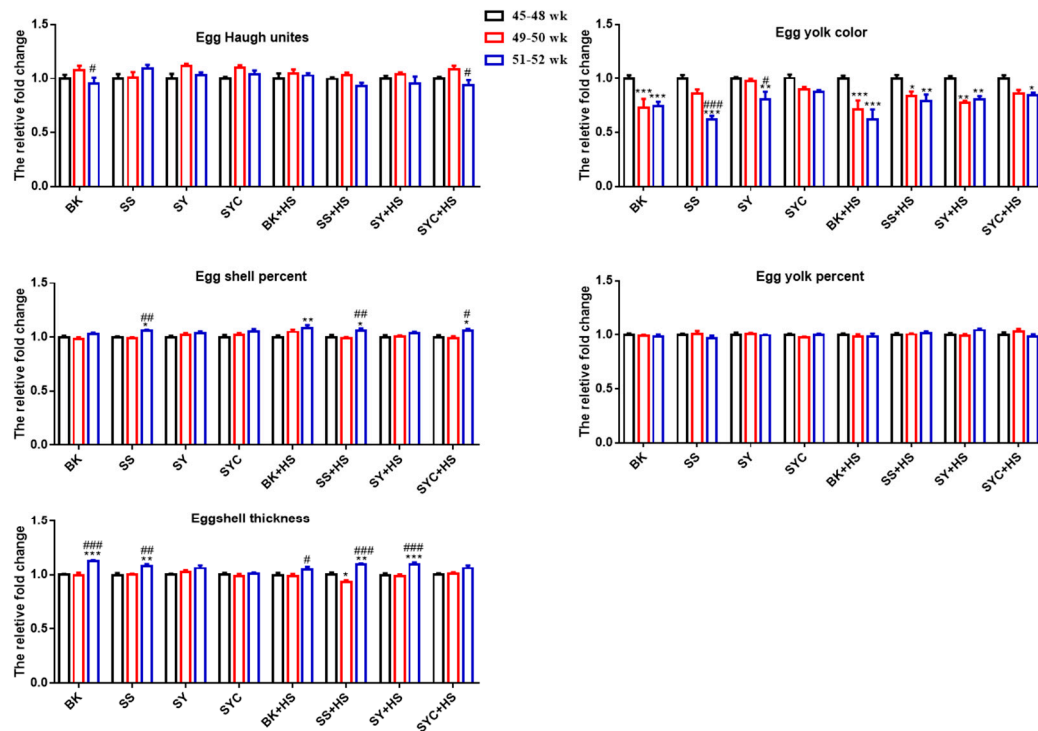


Figure S3. Changes in egg quality of laying hens of different periods. BK: basal diet, SS: sodium selenite, SY: selenium yeast, SYC: selenium-enriched yeast culture. +HS = under circulating high temperature (26 ± 2 °C~ 33 ± 2 °C). Significance compared with 45-48 wk, * $P < 0.05$, ** $P < 0.01$ and *** $P < 0.001$, # indicated that 51-52 wk was compared with 49-50 wk, # $P < 0.05$, ## $P < 0.01$, ### $P < 0.001$.

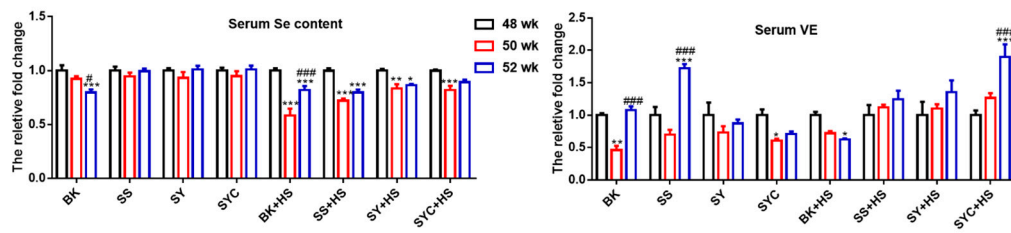


Figure S4. Changes in Se and VE content in serum of laying hens of different periods. BK: basal diet, SS: sodium selenite, SY: selenium yeast, SYC: selenium-enriched yeast culture. +HS = under circulating high temperature (26 ± 2 °C~ 33 ± 2 °C). Significance compared with 48 wk, * $P < 0.05$, ** $P < 0.01$ and *** $P < 0.001$, # indicated that 52 wk was compared with 50 wk, # $P < 0.05$, ## $P < 0.01$, ### $P < 0.001$.

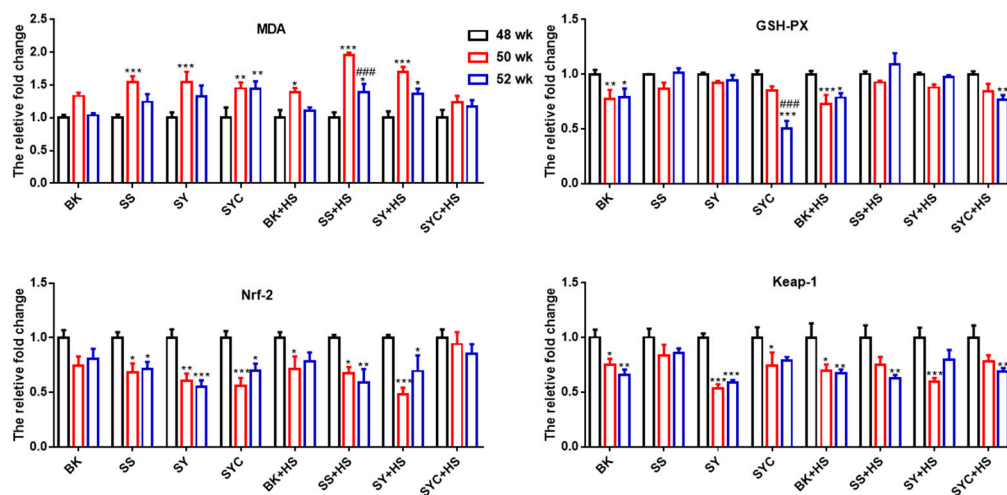


Figure S5. Changes in antioxidant status of laying hens of different periods. BK: basal diet, SS: sodium selenite, SY: selenium yeast, SYC: selenium-enriched yeast culture. +HS = under circulating high temperature (26 ± 2 °C~ 33 ± 2 °C). Significance compared with 48 wk, * $P < 0.05$, ** $P < 0.01$ and *** $P < 0.001$, # indicated that 52 wk was compared with 50 wk, # $P < 0.05$, ## $P < 0.01$, ### $P < 0.001$.

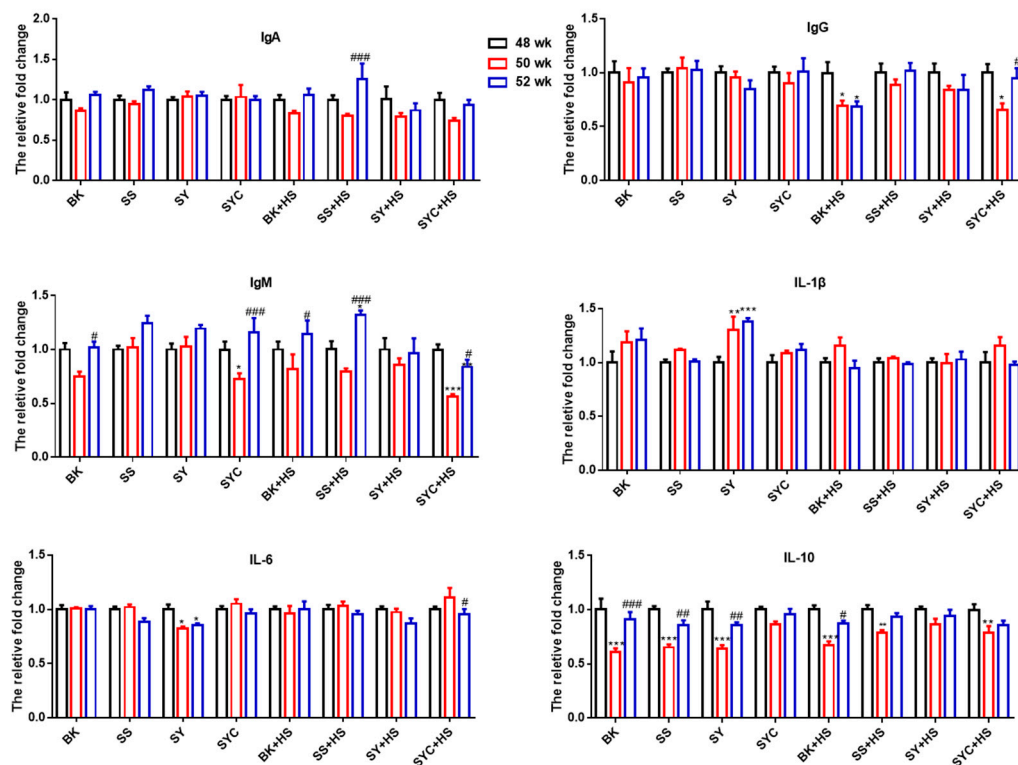


Figure S6. Changes in serum immune indexes of laying hens of different periods. BK: basal diet, SS: sodium selenite, SY: selenium yeast, SYC: selenium-enriched yeast culture. +HS = under circulating high temperature (26 ± 2 °C~ 33 ± 2 °C). Significance compared with 48 wk, * $P < 0.05$, ** $P < 0.01$ and *** $P < 0.001$, # indicated that 52 wk was compared with 50 wk, # $P < 0.05$, ## $P < 0.01$, ### $P < 0.001$.

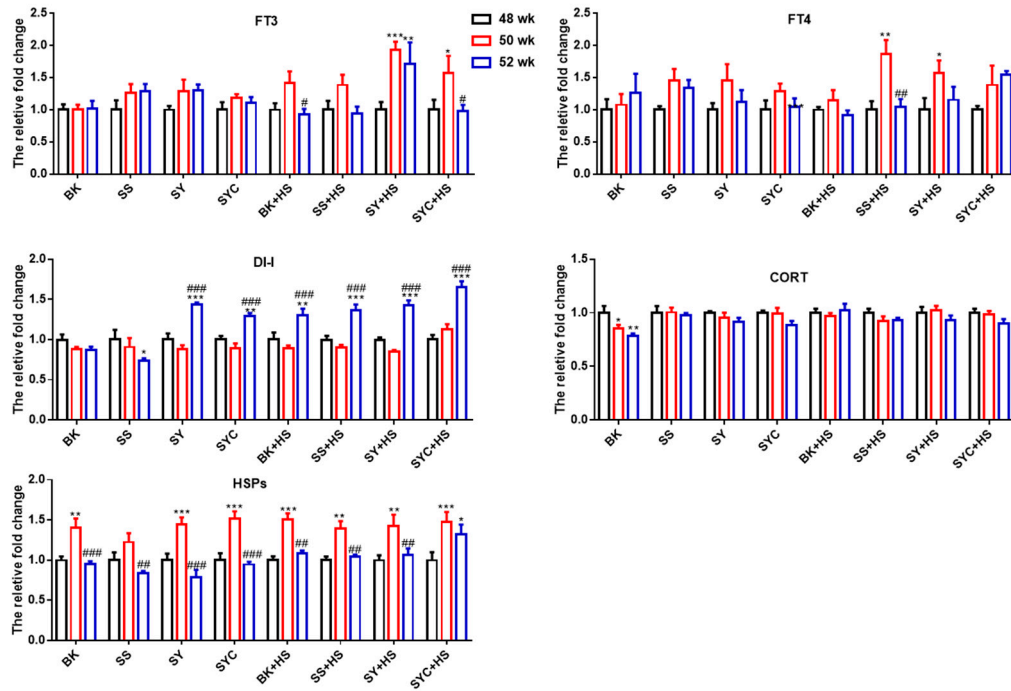


Figure S7. Changes in serum heat stress indexes of laying hens of different periods. BK: basal diet, SS: sodium selenite, SY: selenium yeast, SYC: selenium-enriched yeast culture. +HS = under circulating high temperature (26 ± 2 °C~ 33 ± 2 °C). Significance compared with 48 wk, * $P < 0.05$, ** $P < 0.01$ and *** $P < 0.001$, # indicated that 52 wk was compared with 50 wk, # $P < 0.05$, ## $P < 0.01$, ### $P < 0.001$.