Biochemistry results in quails during pre-infection and post-infection bloodwork compared to reference intervals. (Pre = pre-infection values; Post = post-infection values, AST – aspartate aminotransferase, K+ – kalium, Na+ - natrium). Values above and below the reference range are marked by dark or light grey background, respectively.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Group** | **N°** | **AST** | **Creatine kinase** | **Uric acid** | **Glucose** | **Calcium** | **Phosphorus** | **Total protein** | **Albumin** | **Globulins** | **K+** | **Na+** |
| **(µkat/L)** | **(µkat/L)** | **(µmol/L)** | **(mmol/L)** | **(mmol/L)** | **(mmol/L)** | **(g/L)** | **(g/L)** | **(g/L)** |
|  |  | **pre** | **post** | **pre** | **post** | **pre** | **post** | **pre** | **post** | **pre** | **post** | **pre** | **post** | **pre** | **post** | **pre** | **post** | **pre** | **post** | **pre** | **post** | **pre** | **post** |
| Low dose | Q1 | 2 | 2.3 | 1.1 | 1.9 | 353 | 501 | 14.7 | 15.6 | 1.39 | 1.47 | 1.91 | 1.75 | 31 | 32 | 22 | 24 | 9 | 8 | 2.2 | 1.6 | 132 | 135 |
| Q2 | 2.2 | 2.9 | 2.6 | 7.6 | 322 | 257 | 14.5 | 13.4 | 1.68 | 1.83 | 1.98 | 1.64 | 37 | 39 | 25 | 29 | 13 | 10 | 2 | 1.9 | 141 | 147 |
| Q3 | 2.9 | 3.1 | 1.1 | 0.8 | 509 | 328 | 15.1 | 15.6 | 1.49 | 1.26 | 1.56 | 1.25 | 30 | 29 | 22 | 25 | 8 | 4 | 2 | 1.8 | 141 | 140 |
| High dose | Q4 | 3.1 | 4.5 | 5.2 | 5 | 786 | 241 | 16.7 | 14.4 | 2.08 | 1.89 | 1.65 | 1.43 | 38 | 35 | 29 | 28 | 8 | 7 | 2.9 | 1.8 | 141 | 130 |
| Q5 | 2.5 | 2.5 | 2.2 | 0.9 | 728 | 500 | 19.3 | 14.9 | 1.94 | 1.65 | 1.88 | 1.1 | 38 | 31 | 28 | 27 | 11 | 4 | 2.7 | 1.7 | 158 | 143 |
| Q6 | 2.4 | 2.7 | 0.9 | 0.9 | 302 | 645 | 11.9 | 12.5 | 1.21 | 1.81 | 1.08 | 0.93 | 28 | 31 | 21 | 26 | 7 | 0 | 2.3 | 1.5 | 120 | 141 |
| Snail fed | Q7 | 1.8 | 2.7 | 3.5 | 5.4 | 250 | 370 | 15.5 | 17.2 | 1.61 | 1.63 | 1.72 | 1.51 | 41 | 34 | 24 | 24 | 17 | 11 | 2.7 | <1.5 | 139 | 140 |
| Q8 | 2.3 | 2.4 | 1 | 0.6 | 470 | 431 | 17 | 16.6 | 1.34 | 1.74 | 1.68 | 1.13 | 31 | 32 | 24 | 28 | 7 | 4 | 2.8 | 1.9 | 143 | 153 |
| Q9 | 3.8 | 3.6 | 0.8 | 0.5 | 277 | 625 | 14.6 | 16.5 | 1.18 | 1.67 | 1.56 | 1.05 | 32 | 35 | 24 | 31 | 8 | 4 | 3.8 | 2.2 | 150 | >170 |
| Control | Q10 | 3.2 | 2.7 | 1.9 | 0.9 | 442 | 351 | 14.7 | 12.3 | 1.84 | 1.42 | 1.95 | 1.31 | 32 | 28 | 22 | 22 | 11 | 6 | 1.9 | <1.5 | 148 | 132 |
| Q11 | 2 | 2.5 | 0.8 | 2.7 | 444 | 347 | 18 | 15.4 | 1.63 | 1.66 | 1.66 | 1.02 | 33 | 30 | 24 | 25 | 9 | 5 | 2.6 | <1.5 | 152 | 140 |
| Q12 | 4.1 | ND | 3.7 | ND | 536 | ND | 14.7 | ND | 1.61 | ND | 1.82 | ND | 40 | ND | 26 | ND | 14 | ND | 4.4 | ND | 147 | ND |
| **Reference range** | 6.7– 71 | 1.7– 8.53 | 158– 4224 | 14.41 - 17.361 | 1.20– 1.732 | 2– 2.52 | 6.2– 574 | 13– 282 | 15– 412 | 3– 7.32 | < 1801 |

1, 2 **Crespo, R, and Shivaprasad, HL** (2014). Interpretation of laboratory results and values. In *Backyard Poultry Medicine and Surgery: A Guide for Veterinary Practitioners* (ed. C. B. Greenacre & T. Y. Morishita), pp. 283–296. Oxford, UK: John Wiley & Sons.

3 **Campbell, T** (2012). Clinical Chemistry of Birds. In *Veterinary Hematology and Clinical Chemistry* (ed. M. A. Thrall, G. Weiser, R. Allison, & T. C.), pp. 582–598. Oxford, UK: John Wiley & Sons.

4 **Scholtz, N, Halle, I, Flachowsky, G and Sauerwein, H** (2009). Serum chemistry reference values in adult Japanese quail (*Coturnix coturnix japonica*) including sex-related differences. *Poultry Science* **88**, 1186–1190. doi: 10.3382/ps.2008-00546.