**General Linear Model**

|  |  |  |
| --- | --- | --- |
| *Between-Subjects Factors* | | |
|  | | N |
| nt748 | 0 | 146 |
| 1 | 119 |
| 2 | 37 |
| nt414 | 0 | 202 |
| 1 | 86 |
| 2 | 14 |
| nt821 | 0 | 222 |
| 1 | 80 |

|  |  |
| --- | --- |
| *Box's Test of Equality of Covariance Matricesa* | |
| Box's M | 862.905 |
| F | 1.474 |
| df1 | 468 |
| df2 | 18960.045 |
| Sig. | .000 |

|  |
| --- |
| Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.a |
| a. Design: Intercept + nt748 + nt414 + nt821 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| *Multivariate Testsa* | | | | | | | |
| Effect | | Value | F | Hypothesis df | Error df | Sig. | Partial Eta Squared |
| Intercept | Pillai's Trace | .899 | 210.262b | 12.000 | 285.000 | .000 | .899 |
| Wilks' Lambda | .101 | 210.262b | 12.000 | 285.000 | .000 | .899 |
| Hotelling's Trace | 8.853 | 210.262b | 12.000 | 285.000 | .000 | .899 |
| Roy's Largest Root | 8.853 | 210.262b | 12.000 | 285.000 | .000 | .899 |
| nt748 | Pillai's Trace | .093 | 1.163 | 24.000 | 572.000 | .269 | .047 |
| Wilks' Lambda | .909 | 1.163b | 24.000 | 570.000 | .270 | .047 |
| Hotelling's Trace | .098 | 1.162 | 24.000 | 568.000 | .271 | .047 |
| Roy's Largest Root | .066 | 1.582c | 12.000 | 286.000 | .096 | .062 |
| nt414 | Pillai's Trace | .072 | .894 | 24.000 | 572.000 | .612 | .036 |
| Wilks' Lambda | .929 | .895b | 24.000 | 570.000 | .610 | .036 |
| Hotelling's Trace | .076 | .896 | 24.000 | 568.000 | .609 | .036 |
| Roy's Largest Root | .057 | 1.351c | 12.000 | 286.000 | .189 | .054 |
| nt821 | Pillai's Trace | .157 | 4.423b | 12.000 | 285.000 | .000 | .157 |
| Wilks' Lambda | .843 | 4.423b | 12.000 | 285.000 | .000 | .157 |
| Hotelling's Trace | .186 | 4.423b | 12.000 | 285.000 | .000 | .157 |
| Roy's Largest Root | .186 | 4.423b | 12.000 | 285.000 | .000 | .157 |

|  |
| --- |
| a. Design: Intercept + nt748 + nt414 + nt821 |
| b. Exact statistic |
| c. The statistic is an upper bound on F that yields a lower bound on the significance level. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Levene's Test of Equality of Error Variancesa* | | | | |
|  | F | df1 | df2 | Sig. |
| BW-dir | .793 | 8 | 293 | .610 |
| Wean dir | .907 | 8 | 293 | .511 |
| Mature wt | .768 | 8 | 293 | .631 |
| ADG | 2.709 | 8 | 293 | .007 |
| FCR | 2.235 | 8 | 293 | .025 |
| Fat | 1.334 | 8 | 293 | .226 |
| EMA | 1.817 | 8 | 293 | .074 |
| Marb | 2.337 | 8 | 293 | .019 |
| afc\_ebv | 1.096 | 8 | 293 | .366 |
| icp\_ebv | .606 | 8 | 293 | .773 |
| skr\_ebv | .421 | 8 | 293 | .908 |
| Longevity | .615 | 8 | 293 | .766 |

|  |
| --- |
| Tests the null hypothesis that the error variance of the dependent variable is equal across groups.a |
| a. Design: Intercept + nt748 + nt414 + nt821 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| *Tests of Between-Subjects Effects* | | | | | | | |
| Source | Dependent Variable | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
| Corrected Model | BW-dir | 34.056a | 5 | 6.811 | 3.871 | .002 | .061 |
| Wean dir | 815.088b | 5 | 163.018 | 6.068 | .000 | .093 |
| Mature wt | 3072.076c | 5 | 614.415 | 5.468 | .000 | .085 |
| ADG | 28719.528d | 5 | 5743.906 | 2.321 | .043 | .038 |
| FCR | 3911.978e | 5 | 782.396 | 1.463 | .202 | .024 |
| Fat | 1.867f | 5 | .373 | .325 | .897 | .005 |
| EMA | 29.556g | 5 | 5.911 | 3.249 | .007 | .052 |
| Marb | 3.222h | 5 | .644 | 1.326 | .253 | .022 |
| afc\_ebv | 439.324i | 5 | 87.865 | 1.337 | .248 | .022 |
| icp\_ebv | 13.404j | 5 | 2.681 | .573 | .721 | .010 |
| skr\_ebv | 458.736k | 5 | 91.747 | 1.779 | .117 | .029 |
| Longevity | 109.040l | 5 | 21.808 | .965 | .439 | .016 |
| Intercept | BW-dir | 6.600 | 1 | 6.600 | 3.751 | .054 | .013 |
| Wean dir | 8121.352 | 1 | 8121.352 | 302.316 | .000 | .505 |
| Mature wt | 15931.628 | 1 | 15931.628 | 141.795 | .000 | .324 |
| ADG | 345805.930 | 1 | 345805.930 | 139.705 | .000 | .321 |
| FCR | 139872.735 | 1 | 139872.735 | 261.461 | .000 | .469 |
| Fat | .097 | 1 | .097 | .085 | .771 | .000 |
| EMA | 93.755 | 1 | 93.755 | 51.535 | .000 | .148 |
| Marb | 4.225 | 1 | 4.225 | 8.695 | .003 | .029 |
| afc\_ebv | 14.889 | 1 | 14.889 | .227 | .634 | .001 |
| icp\_ebv | 356.640 | 1 | 356.640 | 76.248 | .000 | .205 |
| skr\_ebv | 10686.229 | 1 | 10686.229 | 207.165 | .000 | .412 |
| Longevity | 49490.895 | 1 | 49490.895 | 2190.966 | .000 | .881 |
| nt748 | BW-dir | 8.113 | 2 | 4.056 | 2.305 | .102 | .015 |
| Wean dir | 77.461 | 2 | 38.730 | 1.442 | .238 | .010 |
| Mature wt | 25.324 | 2 | 12.662 | .113 | .893 | .001 |
| ADG | 452.471 | 2 | 226.236 | .091 | .913 | .001 |
| FCR | 488.048 | 2 | 244.024 | .456 | .634 | .003 |
| Fat | 1.116 | 2 | .558 | .486 | .615 | .003 |
| EMA | 2.568 | 2 | 1.284 | .706 | .495 | .005 |
| Marb | 2.527 | 2 | 1.263 | 2.600 | .076 | .017 |
| afc\_ebv | 84.408 | 2 | 42.204 | .642 | .527 | .004 |
| icp\_ebv | 2.643 | 2 | 1.321 | .283 | .754 | .002 |
| skr\_ebv | 19.712 | 2 | 9.856 | .191 | .826 | .001 |
| Longevity | 61.045 | 2 | 30.523 | 1.351 | .261 | .009 |
| nt414 | BW-dir | 3.291 | 2 | 1.645 | .935 | .394 | .006 |
| Wean dir | 69.207 | 2 | 34.604 | 1.288 | .277 | .009 |
| Mature wt | 203.165 | 2 | 101.583 | .904 | .406 | .006 |
| ADG | 10198.851 | 2 | 5099.426 | 2.060 | .129 | .014 |
| FCR | 1253.337 | 2 | 626.669 | 1.171 | .311 | .008 |
| Fat | 1.760 | 2 | .880 | .767 | .465 | .005 |
| EMA | 2.129 | 2 | 1.064 | .585 | .558 | .004 |
| Marb | 1.231 | 2 | .615 | 1.266 | .283 | .008 |
| afc\_ebv | 116.169 | 2 | 58.084 | .884 | .414 | .006 |
| icp\_ebv | .939 | 2 | .470 | .100 | .905 | .001 |
| skr\_ebv | 222.844 | 2 | 111.422 | 2.160 | .117 | .014 |
| Longevity | 2.159 | 2 | 1.079 | .048 | .953 | .000 |
| nt821 | BW-dir | 26.466 | 1 | 26.466 | 15.041 | .000 | .048 |
| Wean dir | 513.611 | 1 | 513.611 | 19.119 | .000 | .061 |
| Mature wt | 2117.723 | 1 | 2117.723 | 18.848 | .000 | .060 |
| ADG | 9901.253 | 1 | 9901.253 | 4.000 | .046 | .013 |
| FCR | 822.052 | 1 | 822.052 | 1.537 | .216 | .005 |
| Fat | .131 | 1 | .131 | .114 | .735 | .000 |
| EMA | 16.899 | 1 | 16.899 | 9.289 | .003 | .030 |
| Marb | 1.223 | 1 | 1.223 | 2.516 | .114 | .008 |
| afc\_ebv | 134.634 | 1 | 134.634 | 2.049 | .153 | .007 |
| icp\_ebv | 12.184 | 1 | 12.184 | 2.605 | .108 | .009 |
| skr\_ebv | 145.692 | 1 | 145.692 | 2.824 | .094 | .009 |
| Longevity | 10.456 | 1 | 10.456 | .463 | .497 | .002 |
| Error | BW-dir | 520.820 | 296 | 1.760 |  |  |  |
| Wean dir | 7951.675 | 296 | 26.864 |  |  |  |
| Mature wt | 33257.499 | 296 | 112.356 |  |  |  |
| ADG | 732676.279 | 296 | 2475.258 |  |  |  |
| FCR | 158350.218 | 296 | 534.967 |  |  |  |
| Fat | 339.627 | 296 | 1.147 |  |  |  |
| EMA | 538.499 | 296 | 1.819 |  |  |  |
| Marb | 143.832 | 296 | .486 |  |  |  |
| afc\_ebv | 19446.690 | 296 | 65.698 |  |  |  |
| icp\_ebv | 1384.505 | 296 | 4.677 |  |  |  |
| skr\_ebv | 15268.649 | 296 | 51.583 |  |  |  |
| Longevity | 6686.231 | 296 | 22.589 |  |  |  |
| Total | BW-dir | 565.559 | 302 |  |  |  |  |
| Wean dir | 36200.030 | 302 |  |  |  |  |
| Mature wt | 89056.146 | 302 |  |  |  |  |
| ADG | 2022833.044 | 302 |  |  |  |  |
| FCR | 678991.749 | 302 |  |  |  |  |
| Fat | 344.397 | 302 |  |  |  |  |
| EMA | 811.653 | 302 |  |  |  |  |
| Marb | 166.040 | 302 |  |  |  |  |
| afc\_ebv | 20657.300 | 302 |  |  |  |  |
| icp\_ebv | 2567.899 | 302 |  |  |  |  |
| skr\_ebv | 59188.398 | 302 |  |  |  |  |
| Longevity | 190232.625 | 302 |  |  |  |  |
| Corrected Total | BW-dir | 554.876 | 301 |  |  |  |  |
| Wean dir | 8766.764 | 301 |  |  |  |  |
| Mature wt | 36329.574 | 301 |  |  |  |  |
| ADG | 761395.807 | 301 |  |  |  |  |
| FCR | 162262.196 | 301 |  |  |  |  |
| Fat | 341.494 | 301 |  |  |  |  |
| EMA | 568.054 | 301 |  |  |  |  |
| Marb | 147.054 | 301 |  |  |  |  |
| afc\_ebv | 19886.013 | 301 |  |  |  |  |
| icp\_ebv | 1397.909 | 301 |  |  |  |  |
| skr\_ebv | 15727.384 | 301 |  |  |  |  |
| Longevity | 6795.271 | 301 |  |  |  |  |

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| --- |
| a. R Squared = .061 (Adjusted R Squared = .046) |
| b. R Squared = .093 (Adjusted R Squared = .078) |
| c. R Squared = .085 (Adjusted R Squared = .069) |
| d. R Squared = .038 (Adjusted R Squared = .021) |
| e. R Squared = .024 (Adjusted R Squared = .008) |
| f. R Squared = .005 (Adjusted R Squared = -.011) |
| g. R Squared = .052 (Adjusted R Squared = .036) |
| h. R Squared = .022 (Adjusted R Squared = .005) |
| i. R Squared = .022 (Adjusted R Squared = .006) |
| j. R Squared = .010 (Adjusted R Squared = -.007) |
| k. R Squared = .029 (Adjusted R Squared = .013) |
| l. R Squared = .016 (Adjusted R Squared = -.001) |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Parameter Estimates* | | | | | | | | |
| Dependent Variable | Parameter | B | Std. Error | t | Sig. | 95% Confidence Interval | | Partial Eta Squared |
| Lower Bound | Upper Bound |
| BW-dir | Intercept | .671 | .397 | 1.689 | .092 | -.111 | 1.453 | .010 |
| [nt748=0] | -.591 | .376 | -1.569 | .118 | -1.331 | .150 | .008 |
| [nt748=1] | -.675 | .318 | -2.121 | .035 | -1.302 | -.049 | .015 |
| [nt748=2] | 0a | . | . | . | . | . | . |
| [nt414=0] | .668 | .499 | 1.337 | .182 | -.315 | 1.650 | .006 |
| [nt414=1] | .468 | .450 | 1.039 | .300 | -.418 | 1.354 | .004 |
| [nt414=2] | 0a | . | . | . | . | . | . |
| [nt821=0] | -.695 | .179 | -3.878 | .000 | -1.048 | -.342 | .048 |
| [nt821=1] | 0a | . | . | . | . | . | . |
| Wean dir | Intercept | 11.298 | 1.552 | 7.279 | .000 | 8.244 | 14.353 | .152 |
| [nt748=0] | -.996 | 1.471 | -.677 | .499 | -3.890 | 1.898 | .002 |
| [nt748=1] | -1.783 | 1.244 | -1.433 | .153 | -4.231 | .666 | .007 |
| [nt748=2] | 0a | . | . | . | . | . | . |
| [nt414=0] | 2.171 | 1.951 | 1.113 | .267 | -1.668 | 6.010 | .004 |
| [nt414=1] | .754 | 1.759 | .429 | .668 | -2.707 | 4.216 | .001 |
| [nt414=2] | 0a | . | . | . | . | . | . |
| [nt821=0] | -3.061 | .700 | -4.373 | .000 | -4.439 | -1.684 | .061 |
| [nt821=1] | 0a | . | . | . | . | . | . |
| Mature wt | Intercept | 15.982 | 3.174 | 5.035 | .000 | 9.735 | 22.229 | .079 |
| [nt748=0] | -.170 | 3.007 | -.057 | .955 | -6.089 | 5.748 | .000 |
| [nt748=1] | -.791 | 2.544 | -.311 | .756 | -5.798 | 4.216 | .000 |
| [nt748=2] | 0a | . | . | . | . | . | . |
| [nt414=0] | 3.055 | 3.990 | .766 | .444 | -4.797 | 10.907 | .002 |
| [nt414=1] | .532 | 3.597 | .148 | .883 | -6.547 | 7.611 | .000 |
| [nt414=2] | 0a | . | . | . | . | . | . |
| [nt821=0] | -6.217 | 1.432 | -4.341 | .000 | -9.035 | -3.399 | .060 |
| [nt821=1] | 0a | . | . | . | . | . | . |
| ADG | Intercept | 70.995 | 14.899 | 4.765 | .000 | 41.674 | 100.316 | .071 |
| [nt748=0] | -5.832 | 14.116 | -.413 | .680 | -33.612 | 21.948 | .001 |
| [nt748=1] | -4.824 | 11.942 | -.404 | .687 | -28.326 | 18.679 | .001 |
| [nt748=2] | 0a | . | . | . | . | . | . |
| [nt414=0] | 14.026 | 18.727 | .749 | .454 | -22.829 | 50.880 | .002 |
| [nt414=1] | -4.025 | 16.883 | -.238 | .812 | -37.250 | 29.200 | .000 |
| [nt414=2] | 0a | . | . | . | . | . | . |
| [nt821=0] | -13.442 | 6.721 | -2.000 | .046 | -26.669 | -.215 | .013 |
| [nt821=1] | 0a | . | . | . | . | . | . |
| FCR | Intercept | -42.805 | 6.926 | -6.180 | .000 | -56.436 | -29.174 | .114 |
| [nt748=0] | 3.383 | 6.562 | .515 | .607 | -9.532 | 16.298 | .001 |
| [nt748=1] | 4.870 | 5.552 | .877 | .381 | -6.056 | 15.796 | .003 |
| [nt748=2] | 0a | . | . | . | . | . | . |
| [nt414=0] | -7.085 | 8.706 | -.814 | .416 | -24.219 | 10.048 | .002 |
| [nt414=1] | -.780 | 7.849 | -.099 | .921 | -16.226 | 14.666 | .000 |
| [nt414=2] | 0a | . | . | . | . | . | . |
| [nt821=0] | 3.873 | 3.124 | 1.240 | .216 | -2.276 | 10.022 | .005 |
| [nt821=1] | 0a | . | . | . | . | . | . |
| Fat | Intercept | -.001 | .321 | -.002 | .998 | -.632 | .631 | .000 |
| [nt748=0] | -.277 | .304 | -.910 | .363 | -.875 | .322 | .003 |
| [nt748=1] | -.139 | .257 | -.541 | .589 | -.645 | .367 | .001 |
| [nt748=2] | 0a | . | . | . | . | . | . |
| [nt414=0] | .402 | .403 | .997 | .320 | -.392 | 1.195 | .003 |
| [nt414=1] | .192 | .363 | .527 | .599 | -.524 | .907 | .001 |
| [nt414=2] | 0a | . | . | . | . | . | . |
| [nt821=0] | -.049 | .145 | -.338 | .735 | -.334 | .236 | .000 |
| [nt821=1] | 0a | . | . | . | . | . | . |
| EMA | Intercept | 1.386 | .404 | 3.432 | .001 | .591 | 2.181 | .038 |
| [nt748=0] | .443 | .383 | 1.159 | .247 | -.310 | 1.197 | .005 |
| [nt748=1] | .263 | .324 | .813 | .417 | -.374 | .900 | .002 |
| [nt748=2] | 0a | . | . | . | . | . | . |
| [nt414=0] | -.393 | .508 | -.773 | .440 | -1.392 | .607 | .002 |
| [nt414=1] | -.476 | .458 | -1.040 | .299 | -1.377 | .425 | .004 |
| [nt414=2] | 0a | . | . | . | . | . | . |
| [nt821=0] | -.555 | .182 | -3.048 | .003 | -.914 | -.197 | .030 |
| [nt821=1] | 0a | . | . | . | . | . | . |
| Marb | Intercept | .055 | .209 | .262 | .794 | -.356 | .465 | .000 |
| [nt748=0] | .391 | .198 | 1.975 | .049 | .001 | .780 | .013 |
| [nt748=1] | .167 | .167 | .998 | .319 | -.162 | .496 | .003 |
| [nt748=2] | 0a | . | . | . | . | . | . |
| [nt414=0] | -.235 | .262 | -.896 | .371 | -.752 | .281 | .003 |
| [nt414=1] | -.039 | .237 | -.163 | .870 | -.504 | .427 | .000 |
| [nt414=2] | 0a | . | . | . | . | . | . |
| [nt821=0] | .149 | .094 | 1.586 | .114 | -.036 | .335 | .008 |
| [nt821=1] | 0a | . | . | . | . | . | . |
| afc\_ebv | Intercept | 2.342 | 2.427 | .965 | .335 | -2.435 | 7.119 | .003 |
| [nt748=0] | 1.354 | 2.300 | .589 | .557 | -3.172 | 5.879 | .001 |
| [nt748=1] | -.106 | 1.946 | -.055 | .957 | -3.935 | 3.723 | .000 |
| [nt748=2] | 0a | . | . | . | . | . | . |
| [nt414=0] | -3.527 | 3.051 | -1.156 | .249 | -9.532 | 2.477 | .004 |
| [nt414=1] | -3.657 | 2.750 | -1.329 | .185 | -9.070 | 1.756 | .006 |
| [nt414=2] | 0a | . | . | . | . | . | . |
| [nt821=0] | -1.567 | 1.095 | -1.432 | .153 | -3.722 | .587 | .007 |
| [nt821=1] | 0a | . | . | . | . | . | . |
| icp\_ebv | Intercept | -2.331 | .648 | -3.598 | .000 | -3.605 | -1.056 | .042 |
| [nt748=0] | .458 | .614 | .746 | .456 | -.750 | 1.665 | .002 |
| [nt748=1] | .294 | .519 | .567 | .571 | -.727 | 1.316 | .001 |
| [nt748=2] | 0a | . | . | . | . | . | . |
| [nt414=0] | -.364 | .814 | -.447 | .655 | -1.966 | 1.238 | .001 |
| [nt414=1] | -.276 | .734 | -.376 | .707 | -1.720 | 1.169 | .000 |
| [nt414=2] | 0a | . | . | . | . | . | . |
| [nt821=0] | .472 | .292 | 1.614 | .108 | -.103 | 1.047 | .009 |
| [nt821=1] | 0a | . | . | . | . | . | . |
| skr\_ebv | Intercept | 10.967 | 2.151 | 5.099 | .000 | 6.734 | 15.200 | .081 |
| [nt748=0] | -1.253 | 2.038 | -.615 | .539 | -5.263 | 2.757 | .001 |
| [nt748=1] | -.940 | 1.724 | -.545 | .586 | -4.333 | 2.453 | .001 |
| [nt748=2] | 0a | . | . | . | . | . | . |
| [nt414=0] | 1.635 | 2.703 | .605 | .546 | -3.685 | 6.955 | .001 |
| [nt414=1] | -1.008 | 2.437 | -.414 | .679 | -5.804 | 3.788 | .001 |
| [nt414=2] | 0a | . | . | . | . | . | . |
| [nt821=0] | 1.631 | .970 | 1.681 | .094 | -.279 | 3.540 | .009 |
| [nt821=1] | 0a | . | . | . | . | . | . |
| Longevity | Intercept | 22.938 | 1.423 | 16.116 | .000 | 20.137 | 25.739 | .467 |
| [nt748=0] | 2.204 | 1.348 | 1.635 | .103 | -.450 | 4.858 | .009 |
| [nt748=1] | 1.433 | 1.141 | 1.256 | .210 | -.812 | 3.678 | .005 |
| [nt748=2] | 0a | . | . | . | . | . | . |
| [nt414=0] | -.332 | 1.789 | -.186 | .853 | -3.853 | 3.188 | .000 |
| [nt414=1] | -.074 | 1.613 | -.046 | .964 | -3.248 | 3.100 | .000 |
| [nt414=2] | 0a | . | . | . | . | . | . |
| [nt821=0] | .437 | .642 | .680 | .497 | -.827 | 1.700 | .002 |
| [nt821=1] | 0a | . | . | . | . | . | . |

|  |
| --- |
| a. This parameter is set to zero because it is redundant. |

**Estimated Marginal Means**

**1. nt748**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Estimates* | | | | | |
| Dependent Variable | nt748 | Mean | Std. Error | 95% Confidence Interval | |
| Lower Bound | Upper Bound |
| BW-dir | 0 | .111 | .240 | -.361 | .583 |
| 1 | .027 | .199 | -.365 | .419 |
| 2 | .702 | .247 | .215 | 1.189 |
| Wean dir | 0 | 9.747 | .938 | 7.901 | 11.592 |
| 1 | 8.960 | .778 | 7.428 | 10.492 |
| 2 | 10.743 | .966 | 8.841 | 12.645 |
| Mature wt | 0 | 13.899 | 1.918 | 10.125 | 17.673 |
| 1 | 13.279 | 1.592 | 10.146 | 16.411 |
| 2 | 14.069 | 1.976 | 10.180 | 17.959 |
| ADG | 0 | 61.776 | 9.002 | 44.061 | 79.491 |
| 1 | 62.784 | 7.471 | 48.081 | 77.488 |
| 2 | 67.608 | 9.276 | 49.352 | 85.864 |
| FCR | 0 | -40.107 | 4.185 | -48.343 | -31.872 |
| 1 | -38.620 | 3.473 | -45.455 | -31.784 |
| 2 | -43.490 | 4.312 | -51.977 | -35.003 |
| Fat | 0 | -.104 | .194 | -.485 | .277 |
| 1 | .033 | .161 | -.283 | .350 |
| 2 | .173 | .200 | -.220 | .566 |
| EMA | 0 | 1.263 | .244 | .782 | 1.743 |
| 1 | 1.082 | .203 | .684 | 1.481 |
| 2 | .819 | .251 | .324 | 1.314 |
| Marb | 0 | .429 | .126 | .180 | .677 |
| 1 | .205 | .105 | -.001 | .411 |
| 2 | .038 | .130 | -.218 | .294 |
| afc\_ebv | 0 | .517 | 1.467 | -2.369 | 3.404 |
| 1 | -.942 | 1.217 | -3.338 | 1.453 |
| 2 | -.836 | 1.511 | -3.810 | 2.138 |
| icp\_ebv | 0 | -1.850 | .391 | -2.620 | -1.080 |
| 1 | -2.013 | .325 | -2.653 | -1.374 |
| 2 | -2.308 | .403 | -3.101 | -1.514 |
| skr\_ebv | 0 | 10.739 | 1.299 | 8.181 | 13.296 |
| 1 | 11.051 | 1.079 | 8.929 | 13.174 |
| 2 | 11.991 | 1.339 | 9.356 | 14.627 |
| Longevity | 0 | 25.225 | .860 | 23.532 | 26.917 |
| 1 | 24.454 | .714 | 23.049 | 25.858 |
| 2 | 23.021 | .886 | 21.277 | 24.765 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| *Pairwise Comparisons* | | | | | | | |
| Dependent Variable | (I) nt748 | (J) nt748 | Mean Difference (I-J) | Std. Error | Sig.b | 95% Confidence Interval for Differenceb | |
| Lower Bound | Upper Bound |
| BW-dir | 0 | 1 | .085 | .211 | .688 | -.330 | .499 |
| 2 | -.591 | .376 | .118 | -1.331 | .150 |
| 1 | 0 | -.085 | .211 | .688 | -.499 | .330 |
| 2 | -.675\* | .318 | .035 | -1.302 | -.049 |
| 2 | 0 | .591 | .376 | .118 | -.150 | 1.331 |
| 1 | .675\* | .318 | .035 | .049 | 1.302 |
| Wean dir | 0 | 1 | .787 | .824 | .340 | -.834 | 2.408 |
| 2 | -.996 | 1.471 | .499 | -3.890 | 1.898 |
| 1 | 0 | -.787 | .824 | .340 | -2.408 | .834 |
| 2 | -1.783 | 1.244 | .153 | -4.231 | .666 |
| 2 | 0 | .996 | 1.471 | .499 | -1.898 | 3.890 |
| 1 | 1.783 | 1.244 | .153 | -.666 | 4.231 |
| Mature wt | 0 | 1 | .620 | 1.684 | .713 | -2.694 | 3.935 |
| 2 | -.170 | 3.007 | .955 | -6.089 | 5.748 |
| 1 | 0 | -.620 | 1.684 | .713 | -3.935 | 2.694 |
| 2 | -.791 | 2.544 | .756 | -5.798 | 4.216 |
| 2 | 0 | .170 | 3.007 | .955 | -5.748 | 6.089 |
| 1 | .791 | 2.544 | .756 | -4.216 | 5.798 |
| ADG | 0 | 1 | -1.009 | 7.906 | .899 | -16.567 | 14.550 |
| 2 | -5.832 | 14.116 | .680 | -33.612 | 21.948 |
| 1 | 0 | 1.009 | 7.906 | .899 | -14.550 | 16.567 |
| 2 | -4.824 | 11.942 | .687 | -28.326 | 18.679 |
| 2 | 0 | 5.832 | 14.116 | .680 | -21.948 | 33.612 |
| 1 | 4.824 | 11.942 | .687 | -18.679 | 28.326 |
| FCR | 0 | 1 | -1.488 | 3.675 | .686 | -8.721 | 5.745 |
| 2 | 3.383 | 6.562 | .607 | -9.532 | 16.298 |
| 1 | 0 | 1.488 | 3.675 | .686 | -5.745 | 8.721 |
| 2 | 4.870 | 5.552 | .381 | -6.056 | 15.796 |
| 2 | 0 | -3.383 | 6.562 | .607 | -16.298 | 9.532 |
| 1 | -4.870 | 5.552 | .381 | -15.796 | 6.056 |
| Fat | 0 | 1 | -.137 | .170 | .420 | -.472 | .198 |
| 2 | -.277 | .304 | .363 | -.875 | .322 |
| 1 | 0 | .137 | .170 | .420 | -.198 | .472 |
| 2 | -.139 | .257 | .589 | -.645 | .367 |
| 2 | 0 | .277 | .304 | .363 | -.322 | .875 |
| 1 | .139 | .257 | .589 | -.367 | .645 |
| EMA | 0 | 1 | .180 | .214 | .401 | -.242 | .602 |
| 2 | .443 | .383 | .247 | -.310 | 1.197 |
| 1 | 0 | -.180 | .214 | .401 | -.602 | .242 |
| 2 | .263 | .324 | .417 | -.374 | .900 |
| 2 | 0 | -.443 | .383 | .247 | -1.197 | .310 |
| 1 | -.263 | .324 | .417 | -.900 | .374 |
| Marb | 0 | 1 | .224\* | .111 | .044 | .006 | .442 |
| 2 | .391\* | .198 | .049 | .001 | .780 |
| 1 | 0 | -.224\* | .111 | .044 | -.442 | -.006 |
| 2 | .167 | .167 | .319 | -.162 | .496 |
| 2 | 0 | -.391\* | .198 | .049 | -.780 | -.001 |
| 1 | -.167 | .167 | .319 | -.496 | .162 |
| afc\_ebv | 0 | 1 | 1.460 | 1.288 | .258 | -1.075 | 3.994 |
| 2 | 1.354 | 2.300 | .557 | -3.172 | 5.879 |
| 1 | 0 | -1.460 | 1.288 | .258 | -3.994 | 1.075 |
| 2 | -.106 | 1.946 | .957 | -3.935 | 3.723 |
| 2 | 0 | -1.354 | 2.300 | .557 | -5.879 | 3.172 |
| 1 | .106 | 1.946 | .957 | -3.723 | 3.935 |
| icp\_ebv | 0 | 1 | .163 | .344 | .635 | -.513 | .840 |
| 2 | .458 | .614 | .456 | -.750 | 1.665 |
| 1 | 0 | -.163 | .344 | .635 | -.840 | .513 |
| 2 | .294 | .519 | .571 | -.727 | 1.316 |
| 2 | 0 | -.458 | .614 | .456 | -1.665 | .750 |
| 1 | -.294 | .519 | .571 | -1.316 | .727 |
| skr\_ebv | 0 | 1 | -.313 | 1.141 | .784 | -2.559 | 1.933 |
| 2 | -1.253 | 2.038 | .539 | -5.263 | 2.757 |
| 1 | 0 | .313 | 1.141 | .784 | -1.933 | 2.559 |
| 2 | -.940 | 1.724 | .586 | -4.333 | 2.453 |
| 2 | 0 | 1.253 | 2.038 | .539 | -2.757 | 5.263 |
| 1 | .940 | 1.724 | .586 | -2.453 | 4.333 |
| Longevity | 0 | 1 | .771 | .755 | .308 | -.715 | 2.257 |
| 2 | 2.204 | 1.348 | .103 | -.450 | 4.858 |
| 1 | 0 | -.771 | .755 | .308 | -2.257 | .715 |
| 2 | 1.433 | 1.141 | .210 | -.812 | 3.678 |
| 2 | 0 | -2.204 | 1.348 | .103 | -4.858 | .450 |
| 1 | -1.433 | 1.141 | .210 | -3.678 | .812 |

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| Based on estimated marginal means |
| \*. The mean difference is significant at the ,05 level. |
| b. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments). |

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| --- | --- | --- | --- | --- | --- | --- |
| *Multivariate Tests* | | | | | | |
|  | Value | F | Hypothesis df | Error df | Sig. | Partial Eta Squared |
| Pillai's trace | .093 | 1.163 | 24.000 | 572.000 | .269 | .047 |
| Wilks' lambda | .909 | 1.163a | 24.000 | 570.000 | .270 | .047 |
| Hotelling's trace | .098 | 1.162 | 24.000 | 568.000 | .271 | .047 |
| Roy's largest root | .066 | 1.582b | 12.000 | 286.000 | .096 | .062 |

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| --- |
| Each F tests the multivariate effect of nt748. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means. |
| a. Exact statistic |
| b. The statistic is an upper bound on F that yields a lower bound on the significance level. |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| *Univariate Tests* | | | | | | | |
| Dependent Variable | | Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
| BW-dir | Contrast | 8.113 | 2 | 4.056 | 2.305 | .102 | .015 |
| Error | 520.820 | 296 | 1.760 |  |  |  |
| Wean dir | Contrast | 77.461 | 2 | 38.730 | 1.442 | .238 | .010 |
| Error | 7951.675 | 296 | 26.864 |  |  |  |
| Mature wt | Contrast | 25.324 | 2 | 12.662 | .113 | .893 | .001 |
| Error | 33257.499 | 296 | 112.356 |  |  |  |
| ADG | Contrast | 452.471 | 2 | 226.236 | .091 | .913 | .001 |
| Error | 732676.279 | 296 | 2475.258 |  |  |  |
| FCR | Contrast | 488.048 | 2 | 244.024 | .456 | .634 | .003 |
| Error | 158350.218 | 296 | 534.967 |  |  |  |
| Fat | Contrast | 1.116 | 2 | .558 | .486 | .615 | .003 |
| Error | 339.627 | 296 | 1.147 |  |  |  |
| EMA | Contrast | 2.568 | 2 | 1.284 | .706 | .495 | .005 |
| Error | 538.499 | 296 | 1.819 |  |  |  |
| Marb | Contrast | 2.527 | 2 | 1.263 | 2.600 | .076 | .017 |
| Error | 143.832 | 296 | .486 |  |  |  |
| afc\_ebv | Contrast | 84.408 | 2 | 42.204 | .642 | .527 | .004 |
| Error | 19446.690 | 296 | 65.698 |  |  |  |
| icp\_ebv | Contrast | 2.643 | 2 | 1.321 | .283 | .754 | .002 |
| Error | 1384.505 | 296 | 4.677 |  |  |  |
| skr\_ebv | Contrast | 19.712 | 2 | 9.856 | .191 | .826 | .001 |
| Error | 15268.649 | 296 | 51.583 |  |  |  |
| Longevity | Contrast | 61.045 | 2 | 30.523 | 1.351 | .261 | .009 |
| Error | 6686.231 | 296 | 22.589 |  |  |  |

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| The F tests the effect of nt748. This test is based on the linearly independent pairwise comparisons among the estimated marginal means. |

**2. nt414**

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| *Estimates* | | | | | |
| Dependent Variable | nt414 | Mean | Std. Error | 95% Confidence Interval | |
| Lower Bound | Upper Bound |
| BW-dir | 0 | .569 | .170 | .235 | .903 |
| 1 | .369 | .168 | .038 | .700 |
| 2 | -.099 | .418 | -.922 | .725 |
| Wean dir | 0 | 11.012 | .662 | 9.709 | 12.316 |
| 1 | 9.596 | .657 | 8.302 | 10.890 |
| 2 | 8.841 | 1.635 | 5.624 | 12.059 |
| Mature wt | 0 | 15.609 | 1.355 | 12.943 | 18.275 |
| 1 | 13.085 | 1.345 | 10.439 | 15.732 |
| 2 | 12.553 | 3.343 | 5.974 | 19.133 |
| ADG | 0 | 74.748 | 6.358 | 62.235 | 87.261 |
| 1 | 56.698 | 6.311 | 44.277 | 69.118 |
| 2 | 60.723 | 15.692 | 29.840 | 91.605 |
| FCR | 0 | -45.203 | 2.956 | -51.020 | -39.385 |
| 1 | -38.897 | 2.934 | -44.672 | -33.123 |
| 2 | -38.117 | 7.295 | -52.474 | -23.760 |
| Fat | 0 | .238 | .137 | -.031 | .507 |
| 1 | .028 | .136 | -.240 | .295 |
| 2 | -.164 | .338 | -.829 | .501 |
| EMA | 0 | .952 | .172 | .612 | 1.291 |
| 1 | .868 | .171 | .532 | 1.205 |
| 2 | 1.344 | .425 | .507 | 2.182 |
| Marb | 0 | .080 | .089 | -.095 | .255 |
| 1 | .277 | .088 | .103 | .451 |
| 2 | .315 | .220 | -.118 | .748 |
| afc\_ebv | 0 | -1.553 | 1.036 | -3.592 | .486 |
| 1 | -1.682 | 1.028 | -3.706 | .341 |
| 2 | 1.974 | 2.557 | -3.057 | 7.006 |
| icp\_ebv | 0 | -2.208 | .276 | -2.752 | -1.664 |
| 1 | -2.120 | .274 | -2.660 | -1.580 |
| 2 | -1.844 | .682 | -3.187 | -.502 |
| skr\_ebv | 0 | 12.687 | .918 | 10.880 | 14.493 |
| 1 | 10.043 | .911 | 8.250 | 11.836 |
| 2 | 11.051 | 2.265 | 6.593 | 15.510 |
| Longevity | 0 | 24.036 | .607 | 22.841 | 25.232 |
| 1 | 24.294 | .603 | 23.108 | 25.481 |
| 2 | 24.368 | 1.499 | 21.418 | 27.319 |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| *Pairwise Comparisons* | | | | | | | |
| Dependent Variable | (I) nt414 | (J) nt414 | Mean Difference (I-J) | Std. Error | Sig.b | 95% Confidence Interval for Differenceb | |
| Lower Bound | Upper Bound |
| BW-dir | 0 | 1 | .200 | .238 | .401 | -.268 | .668 |
| 2 | .668 | .499 | .182 | -.315 | 1.650 |
| 1 | 0 | -.200 | .238 | .401 | -.668 | .268 |
| 2 | .468 | .450 | .300 | -.418 | 1.354 |
| 2 | 0 | -.668 | .499 | .182 | -1.650 | .315 |
| 1 | -.468 | .450 | .300 | -1.354 | .418 |
| Wean dir | 0 | 1 | 1.417 | .929 | .128 | -.411 | 3.245 |
| 2 | 2.171 | 1.951 | .267 | -1.668 | 6.010 |
| 1 | 0 | -1.417 | .929 | .128 | -3.245 | .411 |
| 2 | .754 | 1.759 | .668 | -2.707 | 4.216 |
| 2 | 0 | -2.171 | 1.951 | .267 | -6.010 | 1.668 |
| 1 | -.754 | 1.759 | .668 | -4.216 | 2.707 |
| Mature wt | 0 | 1 | 2.523 | 1.899 | .185 | -1.215 | 6.261 |
| 2 | 3.055 | 3.990 | .444 | -4.797 | 10.907 |
| 1 | 0 | -2.523 | 1.899 | .185 | -6.261 | 1.215 |
| 2 | .532 | 3.597 | .883 | -6.547 | 7.611 |
| 2 | 0 | -3.055 | 3.990 | .444 | -10.907 | 4.797 |
| 1 | -.532 | 3.597 | .883 | -7.611 | 6.547 |
| ADG | 0 | 1 | 18.051\* | 8.915 | .044 | .505 | 35.596 |
| 2 | 14.026 | 18.727 | .454 | -22.829 | 50.880 |
| 1 | 0 | -18.051\* | 8.915 | .044 | -35.596 | -.505 |
| 2 | -4.025 | 16.883 | .812 | -37.250 | 29.200 |
| 2 | 0 | -14.026 | 18.727 | .454 | -50.880 | 22.829 |
| 1 | 4.025 | 16.883 | .812 | -29.200 | 37.250 |
| FCR | 0 | 1 | -6.305 | 4.145 | .129 | -14.462 | 1.852 |
| 2 | -7.085 | 8.706 | .416 | -24.219 | 10.048 |
| 1 | 0 | 6.305 | 4.145 | .129 | -1.852 | 14.462 |
| 2 | -.780 | 7.849 | .921 | -16.226 | 14.666 |
| 2 | 0 | 7.085 | 8.706 | .416 | -10.048 | 24.219 |
| 1 | .780 | 7.849 | .921 | -14.666 | 16.226 |
| Fat | 0 | 1 | .210 | .192 | .274 | -.168 | .588 |
| 2 | .402 | .403 | .320 | -.392 | 1.195 |
| 1 | 0 | -.210 | .192 | .274 | -.588 | .168 |
| 2 | .192 | .363 | .599 | -.524 | .907 |
| 2 | 0 | -.402 | .403 | .320 | -1.195 | .392 |
| 1 | -.192 | .363 | .599 | -.907 | .524 |
| EMA | 0 | 1 | .083 | .242 | .730 | -.392 | .559 |
| 2 | -.393 | .508 | .440 | -1.392 | .607 |
| 1 | 0 | -.083 | .242 | .730 | -.559 | .392 |
| 2 | -.476 | .458 | .299 | -1.377 | .425 |
| 2 | 0 | .393 | .508 | .440 | -.607 | 1.392 |
| 1 | .476 | .458 | .299 | -.425 | 1.377 |
| Marb | 0 | 1 | -.197 | .125 | .117 | -.442 | .049 |
| 2 | -.235 | .262 | .371 | -.752 | .281 |
| 1 | 0 | .197 | .125 | .117 | -.049 | .442 |
| 2 | -.039 | .237 | .870 | -.504 | .427 |
| 2 | 0 | .235 | .262 | .371 | -.281 | .752 |
| 1 | .039 | .237 | .870 | -.427 | .504 |
| afc\_ebv | 0 | 1 | .129 | 1.452 | .929 | -2.729 | 2.988 |
| 2 | -3.527 | 3.051 | .249 | -9.532 | 2.477 |
| 1 | 0 | -.129 | 1.452 | .929 | -2.988 | 2.729 |
| 2 | -3.657 | 2.750 | .185 | -9.070 | 1.756 |
| 2 | 0 | 3.527 | 3.051 | .249 | -2.477 | 9.532 |
| 1 | 3.657 | 2.750 | .185 | -1.756 | 9.070 |
| icp\_ebv | 0 | 1 | -.088 | .388 | .821 | -.851 | .675 |
| 2 | -.364 | .814 | .655 | -1.966 | 1.238 |
| 1 | 0 | .088 | .388 | .821 | -.675 | .851 |
| 2 | -.276 | .734 | .707 | -1.720 | 1.169 |
| 2 | 0 | .364 | .814 | .655 | -1.238 | 1.966 |
| 1 | .276 | .734 | .707 | -1.169 | 1.720 |
| skr\_ebv | 0 | 1 | 2.643\* | 1.287 | .041 | .110 | 5.176 |
| 2 | 1.635 | 2.703 | .546 | -3.685 | 6.955 |
| 1 | 0 | -2.643\* | 1.287 | .041 | -5.176 | -.110 |
| 2 | -1.008 | 2.437 | .679 | -5.804 | 3.788 |
| 2 | 0 | -1.635 | 2.703 | .546 | -6.955 | 3.685 |
| 1 | 1.008 | 2.437 | .679 | -3.788 | 5.804 |
| Longevity | 0 | 1 | -.258 | .852 | .762 | -1.934 | 1.418 |
| 2 | -.332 | 1.789 | .853 | -3.853 | 3.188 |
| 1 | 0 | .258 | .852 | .762 | -1.418 | 1.934 |
| 2 | -.074 | 1.613 | .964 | -3.248 | 3.100 |
| 2 | 0 | .332 | 1.789 | .853 | -3.188 | 3.853 |
| 1 | .074 | 1.613 | .964 | -3.100 | 3.248 |

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| --- |
| Based on estimated marginal means |
| \*. The mean difference is significant at the ,05 level. |
| b. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments). |

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| --- | --- | --- | --- | --- | --- | --- |
| *Multivariate Tests* | | | | | | |
|  | Value | F | Hypothesis df | Error df | Sig. | Partial Eta Squared |
| Pillai's trace | .072 | .894 | 24.000 | 572.000 | .612 | .036 |
| Wilks' lambda | .929 | .895a | 24.000 | 570.000 | .610 | .036 |
| Hotelling's trace | .076 | .896 | 24.000 | 568.000 | .609 | .036 |
| Roy's largest root | .057 | 1.351b | 12.000 | 286.000 | .189 | .054 |

|  |
| --- |
| Each F tests the multivariate effect of nt414. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means. |
| a. Exact statistic |
| b. The statistic is an upper bound on F that yields a lower bound on the significance level. |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| *Univariate Tests* | | | | | | | |
| Dependent Variable | | Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
| BW-dir | Contrast | 3.291 | 2 | 1.645 | .935 | .394 | .006 |
| Error | 520.820 | 296 | 1.760 |  |  |  |
| Wean dir | Contrast | 69.207 | 2 | 34.604 | 1.288 | .277 | .009 |
| Error | 7951.675 | 296 | 26.864 |  |  |  |
| Mature wt | Contrast | 203.165 | 2 | 101.583 | .904 | .406 | .006 |
| Error | 33257.499 | 296 | 112.356 |  |  |  |
| ADG | Contrast | 10198.851 | 2 | 5099.426 | 2.060 | .129 | .014 |
| Error | 732676.279 | 296 | 2475.258 |  |  |  |
| FCR | Contrast | 1253.337 | 2 | 626.669 | 1.171 | .311 | .008 |
| Error | 158350.218 | 296 | 534.967 |  |  |  |
| Fat | Contrast | 1.760 | 2 | .880 | .767 | .465 | .005 |
| Error | 339.627 | 296 | 1.147 |  |  |  |
| EMA | Contrast | 2.129 | 2 | 1.064 | .585 | .558 | .004 |
| Error | 538.499 | 296 | 1.819 |  |  |  |
| Marb | Contrast | 1.231 | 2 | .615 | 1.266 | .283 | .008 |
| Error | 143.832 | 296 | .486 |  |  |  |
| afc\_ebv | Contrast | 116.169 | 2 | 58.084 | .884 | .414 | .006 |
| Error | 19446.690 | 296 | 65.698 |  |  |  |
| icp\_ebv | Contrast | .939 | 2 | .470 | .100 | .905 | .001 |
| Error | 1384.505 | 296 | 4.677 |  |  |  |
| skr\_ebv | Contrast | 222.844 | 2 | 111.422 | 2.160 | .117 | .014 |
| Error | 15268.649 | 296 | 51.583 |  |  |  |
| Longevity | Contrast | 2.159 | 2 | 1.079 | .048 | .953 | .000 |
| Error | 6686.231 | 296 | 22.589 |  |  |  |

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| The F tests the effect of nt414. This test is based on the linearly independent pairwise comparisons among the estimated marginal means. |

**3. nt821**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Estimates* | | | | | |
| Dependent Variable | nt821 | Mean | Std. Error | 95% Confidence Interval | |
| Lower Bound | Upper Bound |
| BW-dir | 0 | -.068 | .140 | -.344 | .209 |
| 1 | .627 | .195 | .243 | 1.012 |
| Wean dir | 0 | 8.286 | .548 | 7.207 | 9.365 |
| 1 | 11.347 | .763 | 9.846 | 12.849 |
| Mature wt | 0 | 10.641 | 1.121 | 8.434 | 12.847 |
| 1 | 16.857 | 1.560 | 13.787 | 19.928 |
| ADG | 0 | 57.335 | 5.263 | 46.978 | 67.692 |
| 1 | 70.777 | 7.323 | 56.365 | 85.189 |
| FCR | 0 | -38.802 | 2.447 | -43.617 | -33.988 |
| 1 | -42.676 | 3.405 | -49.376 | -35.975 |
| Fat | 0 | .010 | .113 | -.213 | .233 |
| 1 | .058 | .158 | -.252 | .369 |
| EMA | 0 | .777 | .143 | .496 | 1.058 |
| 1 | 1.332 | .199 | .942 | 1.723 |
| Marb | 0 | .299 | .074 | .153 | .444 |
| 1 | .149 | .103 | -.053 | .351 |
| afc\_ebv | 0 | -1.204 | .857 | -2.891 | .483 |
| 1 | .363 | 1.193 | -1.985 | 2.711 |
| icp\_ebv | 0 | -1.821 | .229 | -2.272 | -1.371 |
| 1 | -2.293 | .318 | -2.919 | -1.666 |
| skr\_ebv | 0 | 12.076 | .760 | 10.581 | 13.571 |
| 1 | 10.445 | 1.057 | 8.365 | 12.526 |
| Longevity | 0 | 24.451 | .503 | 23.462 | 25.441 |
| 1 | 24.015 | .700 | 22.638 | 25.391 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| *Pairwise Comparisons* | | | | | | | |
| Dependent Variable | (I) nt821 | (J) nt821 | Mean Difference (I-J) | Std. Error | Sig.b | 95% Confidence Interval for Differenceb | |
| Lower Bound | Upper Bound |
| BW-dir | 0 | 1 | -.695\* | .179 | .000 | -1.048 | -.342 |
| 1 | 0 | .695\* | .179 | .000 | .342 | 1.048 |
| Wean dir | 0 | 1 | -3.061\* | .700 | .000 | -4.439 | -1.684 |
| 1 | 0 | 3.061\* | .700 | .000 | 1.684 | 4.439 |
| Mature wt | 0 | 1 | -6.217\* | 1.432 | .000 | -9.035 | -3.399 |
| 1 | 0 | 6.217\* | 1.432 | .000 | 3.399 | 9.035 |
| ADG | 0 | 1 | -13.442\* | 6.721 | .046 | -26.669 | -.215 |
| 1 | 0 | 13.442\* | 6.721 | .046 | .215 | 26.669 |
| FCR | 0 | 1 | 3.873 | 3.124 | .216 | -2.276 | 10.022 |
| 1 | 0 | -3.873 | 3.124 | .216 | -10.022 | 2.276 |
| Fat | 0 | 1 | -.049 | .145 | .735 | -.334 | .236 |
| 1 | 0 | .049 | .145 | .735 | -.236 | .334 |
| EMA | 0 | 1 | -.555\* | .182 | .003 | -.914 | -.197 |
| 1 | 0 | .555\* | .182 | .003 | .197 | .914 |
| Marb | 0 | 1 | .149 | .094 | .114 | -.036 | .335 |
| 1 | 0 | -.149 | .094 | .114 | -.335 | .036 |
| afc\_ebv | 0 | 1 | -1.567 | 1.095 | .153 | -3.722 | .587 |
| 1 | 0 | 1.567 | 1.095 | .153 | -.587 | 3.722 |
| icp\_ebv | 0 | 1 | .472 | .292 | .108 | -.103 | 1.047 |
| 1 | 0 | -.472 | .292 | .108 | -1.047 | .103 |
| skr\_ebv | 0 | 1 | 1.631 | .970 | .094 | -.279 | 3.540 |
| 1 | 0 | -1.631 | .970 | .094 | -3.540 | .279 |
| Longevity | 0 | 1 | .437 | .642 | .497 | -.827 | 1.700 |
| 1 | 0 | -.437 | .642 | .497 | -1.700 | .827 |

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| Based on estimated marginal means |
| \*. The mean difference is significant at the ,05 level. |
| b. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments). |

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| *Multivariate Tests* | | | | | | |
|  | Value | F | Hypothesis df | Error df | Sig. | Partial Eta Squared |
| Pillai's trace | .157 | 4.423a | 12.000 | 285.000 | .000 | .157 |
| Wilks' lambda | .843 | 4.423a | 12.000 | 285.000 | .000 | .157 |
| Hotelling's trace | .186 | 4.423a | 12.000 | 285.000 | .000 | .157 |
| Roy's largest root | .186 | 4.423a | 12.000 | 285.000 | .000 | .157 |

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| Each F tests the multivariate effect of nt821. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means. |
| a. Exact statistic |

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| *Univariate Tests* | | | | | | | |
| Dependent Variable | | Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
| BW-dir | Contrast | 26.466 | 1 | 26.466 | 15.041 | .000 | .048 |
| Error | 520.820 | 296 | 1.760 |  |  |  |
| Wean dir | Contrast | 513.611 | 1 | 513.611 | 19.119 | .000 | .061 |
| Error | 7951.675 | 296 | 26.864 |  |  |  |
| Mature wt | Contrast | 2117.723 | 1 | 2117.723 | 18.848 | .000 | .060 |
| Error | 33257.499 | 296 | 112.356 |  |  |  |
| ADG | Contrast | 9901.253 | 1 | 9901.253 | 4.000 | .046 | .013 |
| Error | 732676.279 | 296 | 2475.258 |  |  |  |
| FCR | Contrast | 822.052 | 1 | 822.052 | 1.537 | .216 | .005 |
| Error | 158350.218 | 296 | 534.967 |  |  |  |
| Fat | Contrast | .131 | 1 | .131 | .114 | .735 | .000 |
| Error | 339.627 | 296 | 1.147 |  |  |  |
| EMA | Contrast | 16.899 | 1 | 16.899 | 9.289 | .003 | .030 |
| Error | 538.499 | 296 | 1.819 |  |  |  |
| Marb | Contrast | 1.223 | 1 | 1.223 | 2.516 | .114 | .008 |
| Error | 143.832 | 296 | .486 |  |  |  |
| afc\_ebv | Contrast | 134.634 | 1 | 134.634 | 2.049 | .153 | .007 |
| Error | 19446.690 | 296 | 65.698 |  |  |  |
| icp\_ebv | Contrast | 12.184 | 1 | 12.184 | 2.605 | .108 | .009 |
| Error | 1384.505 | 296 | 4.677 |  |  |  |
| skr\_ebv | Contrast | 145.692 | 1 | 145.692 | 2.824 | .094 | .009 |
| Error | 15268.649 | 296 | 51.583 |  |  |  |
| Longevity | Contrast | 10.456 | 1 | 10.456 | .463 | .497 | .002 |
| Error | 6686.231 | 296 | 22.589 |  |  |  |

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| The F tests the effect of nt821. This test is based on the linearly independent pairwise comparisons among the estimated marginal means. |