|          | MFD  | FFD  | BD   | RD   | LOV  | VEGAN | PV |
|----------|------|------|------|------|------|-------|----|
| SODIUM   |      |      |      |      |      |       |    |
| MFD      | -    | 0.1758 | 0.3203 | <0.0001 | 0.1795 | 0.2795 | 0.1918 |
| FFD      | 0.1758 | - | 0.7145 | <0.0001 | 0.9907 | 0.0167 | 0.9604 |
| BD       | 0.3203 | 0.7145 | - | <0.0001 | 0.7232 | 0.0404 | 0.7518 |
| RD       | <0.0001 | <0.0001 | <0.0001 | - | <0.0001 | <0.0001 | <0.0001 |
| LOV      | 0.1795 | 0.9907 | 0.7232 | <0.0001 | - | 0.0172 | 0.9698 |
| VEGAN    | 0.2795 | 0.0167 | 0.0404 | <0.0001 | 0.0172 | - | 0.0189 |
| PV       | 0.1918 | 0.9604 | 0.7518 | <0.0001 | 0.9698 | 0.0189 | - |
| POTASSIUM |      |      |      |      |      |       |    |
| MFD      | -    | 0.7795 | 0.8219 | <0.0001 | 0.3288 | 0.8530 | 0.3546 |
| FFD      | 0.7795 | - | 0.6138 | <0.0001 | 0.4846 | 0.6420 | 0.5171 |
| BD       | 0.8219 | 0.6138 | - | <0.0001 | 0.2307 | 0.9682 | 0.2509 |
| RD       | <0.0001 | <0.0001 | <0.0001 | - | <0.0001 | <0.0001 | <0.0001 |
| LOV      | 0.3288 | 0.4846 | 0.2307 | <0.0001 | - | 0.2463 | 0.9591 |
| VEGAN    | 0.8530 | 0.6420 | 0.9682 | <0.0001 | 0.2463 | - | 0.2675 |
| PV       | 0.3546 | 0.5171 | 0.2509 | <0.0001 | 0.9591 | 0.2675 | - |
| CALCIUM  |      |      |      |      |      |       |    |
| MFD      | -    | <0.0001 | <0.0001 | 0.9349 | <0.0001 | 0.1227 | <0.0001 |
| FFD      | <0.0001 | - | 0.2687 | <0.0001 | 0.4228 | <0.0001 | 0.4361 |
| BD       | <0.0001 | 0.2687 | - | <0.0001 | 0.0590 | <0.0001 | 0.0621 |
| RD       | 0.9349 | <0.0001 | <0.0001 | - | <0.0001 | 0.1046 | <0.0001 |
| LOV      | <0.0001 | 0.4228 | 0.0590 | <0.0001 | - | <0.0001 | 0.9816 |
| VEGAN    | 0.1227 | <0.0001 | <0.0001 | 0.1046 | <0.0001 | - | <0.0001 |
| PV       | <0.0001 | 0.4361 | 0.0621 | <0.0001 | 0.9816 | <0.0001 | - |
| PHOSPHORUS |      |      |      |      |      |       |    |
| MFD      | -    | 0.0100 | 0.0128 | <0.0001 | 0.0284 | 0.4192 | 0.0284 |
| FFD      | 0.0100 | - | 0.9273 | <0.0001 | 0.6814 | 0.0009 | 0.6814 |
| BD       | 0.0128 | 0.9273 | - | <0.0001 | 0.7494 | 0.0013 | 0.7494 |
| RD       | <0.0001 | <0.0001 | <0.0001 | - | <0.0001 | <0.0001 | <0.0001 |
| LOV      | 0.0284 | 0.6814 | 0.7494 | <0.0001 | - | 0.0033 | >0.9999 |
| VEGAN    | 0.4192 | 0.0009 | 0.0013 | <0.0001 | 0.0033 | - | 0.0033 |
| PV       | 0.0284 | 0.6814 | 0.7494 | <0.0001 | >0.9999 | 0.0033 | - |
| MAGNESIUM |      |      |      |      |      |       |    |
| MFD      | -    | 0.0734 | 0.0937 | <0.0001 | 0.0143 | 0.2977 | 0.0444 |
| FFD      | 0.0734 | - | 0.9061 | <0.0001 | 0.4880 | 0.0056 | 0.8187 |
| BD       | 0.0937 | 0.9061 | - | <0.0001 | 0.4175 | 0.0077 | 0.7285 |
| RD       | <0.0001 | <0.0001 | <0.0001 | - | <0.0001 | <0.0001 | <0.0001 |
| LOV      | 0.0143 | 0.4880 | 0.4175 | <0.0001 | - | 0.0007 | 0.6418 |
| VEGAN    | 0.2977 | 0.0056 | 0.0077 | <0.0001 | 0.0007 | - | 0.0029 |
| PV       | 0.0444 | 0.8187 | 0.7285 | <0.0001 | 0.6418 | 0.0029 | - |
| IRON     |      |      |      |      |      |       |    |
| MFD      | -    | 0.0009 | 0.0014 | <0.0001 | 0.0044 | 0.0484 | 0.0009 |
| FFD      | 0.0009 | - | 0.8963 | <0.0001 | 0.6043 | <0.0001 | 0.9778 |
| BD       | 0.0014 | 0.8963 | - | <0.0001 | 0.6979 | <0.0001 | 0.8743 |
| RD       | <0.0001 | <0.0001 | <0.0001 | - | <0.0001 | <0.0001 | <0.0001 |
| LOV      | 0.0044 | 0.6043 | 0.6979 | <0.0001 | - | <0.0001 | 0.5851 |
| VEGAN    | 0.0484 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | - | <0.0001 |
### Table S2. The presence of statistically significant differences in the content of vitamins between the diets

| VIT.A     | MFD   | FFD   | BD    | RD    | LOV   | VEGAN | PV    |
|-----------|-------|-------|-------|-------|-------|-------|-------|
| PV        | 0.0009 | 0.9778 | 0.8743 | <0.0001 | 0.5851 | <0.0001 | -     |
| ZINC      | MFD   | FFD   | BD    | RD    | LOV   | VEGAN | PV    |
| MFD       | -     | 0.2353 | 0.4921 | 0.0357 | 0.2599 | 0.5072 | 0.3442 |
| FFD       | 0.2353 | -     | 0.6136 | 0.0014 | 0.9512 | 0.5971 | 0.8070 |
| BD        | 0.4921 | 0.6136 | -     | 0.0061 | 0.6572 | 0.9810 | 0.7942 |
| RD        | 0.0357 | 0.0014 | 0.0061 | -     | 0.0017 | 0.0065 | 0.0029 |
| LOV       | 0.2599 | 0.9512 | 0.6572 | 0.0017 | -     | 0.6401 | 0.8546 |
| VEGAN     | 0.5072 | 0.5971 | 0.9810 | 0.0065 | 0.6401 | -     | 0.7759 |
| PV        | 0.3442 | 0.8070 | 0.7942 | 0.0029 | 0.8546 | 0.7759 | -     |
| COPPER    | MFD   | FFD   | BD    | RD    | LOV   | VEGAN | PV    |
| MFD       | -     | 0.0466 | 0.0383 | <0.0001 | 0.0359 | 0.0766 | 0.0738 |
| FFD       | 0.0466 | -     | 0.9314 | <0.0001 | 0.9090 | 0.0003 | 0.8330 |
| BD        | 0.0383 | 0.9314 | -     | <0.0001 | 0.9775 | 0.0002 | 0.7666 |
| RD        | <0.0001 | <0.0001 | <0.0001 | -     | <0.0001 | <0.0001 | <0.0001 |
| LOV       | 0.0359 | 0.9090 | 0.9775 | <0.0001 | -     | 0.0002 | 0.7452 |
| VEGAN     | 0.0766 | 0.0003 | 0.0002 | <0.0001 | 0.0002 | -     | 0.0006 |
| PV        | 0.0738 | 0.8330 | 0.7666 | <0.0001 | 0.7452 | 0.0006 | -     |
| MANGANESE | MFD   | FFD   | BD    | RD    | LOV   | VEGAN | PV    |
| MFD       | -     | 0.2735 | 0.1858 | <0.0001 | 0.2128 | 0.1402 | 0.2799 |
| FFD       | 0.2735 | -     | 0.8166 | <0.0001 | 0.8780 | 0.0116 | 0.9882 |
| BD        | 0.1858 | 0.8166 | -     | <0.0001 | 0.9374 | 0.0062 | 0.8051 |
| RD        | <0.0001 | <0.0001 | <0.0001 | -     | <0.0001 | <0.0001 | <0.0001 |
| LOV       | 0.2128 | 0.8780 | 0.9374 | <0.0001 | -     | 0.0077 | 0.8664 |
| VEGAN     | 0.1402 | 0.0116 | 0.0062 | <0.0001 | 0.0077 | -     | 0.0121 |
| PV        | 0.2799 | 0.9882 | 0.8051 | <0.0001 | 0.8664 | 0.0121 | -     |
| IODINE    | MFD   | FFD   | BD    | RD    | LOV   | VEGAN | PV    |
| MFD       | -     | 0.1976 | 0.6870 | 0.0510 | 0.0440 | 0.0083 | 0.0583 |
| FFD       | 0.1976 | -     | 0.3729 | 0.0016 | 0.4543 | 0.1590 | 0.5333 |
| BD        | 0.6870 | 0.3729 | -     | 0.0197 | 0.1038 | 0.0234 | 0.1326 |
| RD        | 0.0510 | 0.0016 | 0.0197 | -     | 0.0001 | <0.0001 | 0.0002 |
| LOV       | 0.0440 | 0.4543 | 0.1038 | 0.0001 | -     | 0.5038 | 0.8997 |
| VEGAN     | 0.0083 | 0.1590 | 0.0234 | <0.0001 | 0.5038 | -     | 0.4274 |
| PV        | 0.0583 | 0.5333 | 0.1326 | 0.0002 | 0.8997 | 0.4274 | -     |

The presence of statistically significant differences in the content of vitamins between the diets.
|        | MFD    | FFD    | BD     | RD     | LOV    | VEGAN   | PV  |
|--------|--------|--------|--------|--------|--------|---------|-----|
| BD     | 0.1634 | 0.9867 | -      | <0.0001| 0.1834 | 0.0097  | 0.5890|
| RD     | <0.0001| <0.0001| <0.0001| -      | 0.0002 | <0.0001| <0.0001|
| LOV    | 0.0077 | 0.1888 | 0.1834 | 0.0002 | -      | 0.0002  | 0.4255|
| VEGAN  | 0.2129 | 0.0093 | 0.0097 | <0.0001| 0.0002 | -       | 0.0021|
| PV     | 0.0552 | 0.6005 | 0.5890 | <0.0001| 0.4255 | 0.0021  | -   |
| BETA-  |        |        |        |        |        |         |     |
| CAROTEN|        |        |        |        |        |         |     |
| MFD    |        |        |        |        |        |         |     |
| FFD    |        |        |        |        |        |         |     |
| BD     |        |        |        |        |        |         |     |
| RD     |        |        |        |        |        |         |     |
| LOV    |        |        |        |        |        |         |     |
| VEGAN  |        |        |        |        |        |         |     |
| PV     |        |        |        |        |        |         |     |
| VIT.E  |        |        |        |        |        |         |     |
| MFD    |        |        |        |        |        |         |     |
| FFD    |        |        |        |        |        |         |     |
| BD     |        |        |        |        |        |         |     |
| RD     |        |        |        |        |        |         |     |
| LOV    |        |        |        |        |        |         |     |
| VEGAN  |        |        |        |        |        |         |     |
| PV     |        |        |        |        |        |         |     |
| THIAMIN|        |        |        |        |        |         |     |
| MFD    |        |        |        |        |        |         |     |
| FFD    |        |        |        |        |        |         |     |
| BD     |        |        |        |        |        |         |     |
| RD     |        |        |        |        |        |         |     |
| LOV    |        |        |        |        |        |         |     |
| VEGAN  |        |        |        |        |        |         |     |
| PV     |        |        |        |        |        |         |     |
| RIBOFLAVIN|      |        |        |        |        |         |     |
| MFD    |        |        |        |        |        |         |     |
| FFD    |        |        |        |        |        |         |     |
| BD     |        |        |        |        |        |         |     |
| RD     |        |        |        |        |        |         |     |
| LOV    |        |        |        |        |        |         |     |
| VEGAN  |        |        |        |        |        |         |     |
| PV     |        |        |        |        |        |         |     |
| NIACIN | MFD    | FFD    | BD     | RD     | LOV    | VEGAN   | PV  |
| MFD    |        |        |        |        |        |         |     |
| FFD    |        |        |        |        |        |         |     |
| BD     |        |        |        |        |        |         |     |
| RD     |        |        |        |        |        |         |     |
| LOV    |        |        |        |        |        |         |     |
| VEGAN  |        |        |        |        |        |         |     |
| PV     |        |        |        |        |        |         |     |
| VIT.B6 | MFD    | FFD    | BD     | RD     | LACTO  | VEGAN   | PV  |
| MFD    |        |        |        |        |        |         |     |
| FFD    |        |        |        |        |        |         |     |
| BD     |        |        |        |        |        |         |     |
| RD     |        |        |        |        |        |         |     |
| LOV    |        |        |        |        |        |         |     |
| VEGAN  |        |        |        |        |        |         |     |
| PV     |        |        |        |        |        |         |     |
|       | MFD  | FFD  | BD   | RD   | LOV  | VEGAN | PV   | FOLATES | VIT.B12 | PV   |
|-------|------|------|------|------|------|-------|------|---------|---------|------|
|       |      |      |      |      |      |       |      |         |         |      |
| MFD   | -    | 0.1275 | 0.6135 | <0.0001 | 0.0181 | 0.1532 | 0.0120 |         |         |      |
| FFD   | 0.1275 | -    | 0.3037 | <0.0001 | 0.3811 | 0.9216 | 0.3007 |         |         |      |
| BD    | 0.6135 | 0.3037 | -    | <0.0001 | 0.0595 | 0.3518 | 0.0416 |         |         |      |
| RD    | <0.0001 | <0.0001 | <0.0001 | -    | 0.0005 | <0.0001 | <0.0009 |         |         |      |
| LOV   | 0.0181 | 0.3811 | 0.0595 | 0.0005 | -    | 0.3304 | 0.2577 |         |         |      |
| VEGAN | 0.1532 | 0.9216 | 0.3518 | <0.0001 | 0.3304 | -    | 0.2577 |         |         |      |
| PV    | 0.0120 | 0.3007 | 0.0416 | 0.0009 | 0.8723 | 0.2577 | -    |         |         |      |
| VIT.C | MFD  | FFD  | BD   | RD   | LOV  | VEGAN | PV   |         |         |      |
| MFD   | -    | 0.7323 | 0.6378 | <0.0001 | 0.4287 | 0.9416 | 0.9266 |         |         |      |
| FFD   | 0.7323 | -    | 0.8970 | <0.0001 | 0.6518 | 0.7884 | 0.8029 |         |         |      |
| BD    | 0.6378 | 0.8970 | -    | <0.0001 | 0.7474 | 0.6909 | 0.7048 |         |         |      |
| RD    | <0.0001 | <0.0001 | <0.0001 | -    | <0.0001 | <0.0001 | <0.0001 |         |         |      |
| LOV   | 0.4287 | 0.6518 | 0.7474 | <0.0001 | -    | 0.4724 | 0.4840 |         |         |      |
| VEGAN | 0.9416 | 0.7884 | 0.6909 | <0.0001 | 0.4724 | -    | 0.9850 |         |         |      |
| PV    | 0.9266 | 0.8029 | 0.7048 | <0.0001 | 0.4840 | 0.9850 | -    |         |         |      |
| FOLATES | MFD  | FFD  | BD   | RD   | LOV  | VEGAN | PV   |         |         |      |
| MFD   | -    | 0.7323 | 0.8574 | <0.0001 | 0.7192 | 0.4556 | 0.9555 |         |         |      |
| FFD   | 0.7323 | -    | 0.8710 | <0.0001 | 0.4836 | 0.2780 | 0.7747 |         |         |      |
| BD    | 0.8574 | 0.8710 | -    | <0.0001 | 0.5900 | 0.3553 | 0.9014 |         |         |      |
| RD    | <0.0001 | <0.0001 | <0.0001 | -    | <0.0001 | <0.0001 | <0.0001 |         |         |      |
| LOV   | 0.7192 | 0.4836 | 0.5900 | <0.0001 | -    | 0.6981 | 0.6779 |         |         |      |
| VEGAN | 0.4556 | 0.2780 | 0.3553 | <0.0001 | 0.6981 | -    | 0.4228 |         |         |      |
| PV    | 0.9555 | 0.7747 | 0.9014 | <0.0001 | 0.6779 | 0.4228 | -    |         |         |      |
| VIT.B12 | MFD  | FFD  | BD   | RD   | LOV  | VEGAN | PV   |         |         |      |
| MFD   | -    | 0.0259 | 0.3019 | 0.9989 | 0.0884 | 0.0032 | 0.0173 |         |         |      |
| FFD   | 0.0259 | -    | 0.2191 | 0.0260 | 0.5834 | 0.4371 | 0.8721 |         |         |      |
| BD    | 0.3019 | 0.2191 | -    | 0.3026 | 0.4927 | 0.0473 | 0.1655 |         |         |      |
| RD    | 0.9989 | 0.0260 | 0.3026 | -    | 0.0886 | 0.0032 | 0.0174 |         |         |      |
| LOV   | 0.0884 | 0.5834 | 0.4927 | 0.0886 | -    | 0.1872 | 0.4785 |         |         |      |
| VEGAN | 0.0032 | 0.4371 | 0.0473 | 0.0032 | 0.1872 | -    | 0.5372 |         |         |      |
| PV    | 0.0173 | 0.8721 | 0.1655 | 0.0174 | 0.4785 | 0.5372 | -    |         |         |      |
| VIT.D | MFD  | FFD  | BD   | RD   | LOV  | VEGAN | PV   |         |         |      |
| MFD   | -    | 0.0072 | 0.4768 | 0.5363 | 0.0193 | 0.00075 | 0.0066 |         |         |      |
| FFD   | 0.0072 | -    | 0.0435 | 0.0351 | 0.7093 | 0.9912 | 0.9737 |         |         |      |
| BD    | 0.4768 | 0.0435 | -    | 0.9255 | 0.0968 | 0.0446 | 0.0404 |         |         |      |
| RD    | 0.5363 | 0.0351 | 0.9255 | -    | 0.0800 | 0.0360 | 0.0325 |         |         |      |
| LOV   | 0.0193 | 0.7093 | 0.0968 | 0.0800 | -    | 0.7175 | 0.6849 |         |         |      |
| VEGAN | 0.0075 | 0.9912 | 0.0446 | 0.0360 | 0.7175 | -    | 0.9649 |         |         |      |
| PV    | 0.0066 | 0.9737 | 0.0404 | 0.0325 | 0.6849 | 0.9649 | -    |         |         |      |

*bold*– statistically significant differences