**Effects of dietary crude protein and amino acid restriction on the growth dynamics of organs and body components in entire male, castrated, and female pigs**

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**animal**

Supplementary Material S1**.** Detailed description of the pre-treatment of the weight data of organs, gastrointestinal tract, carcass characteristics, carcass cuts and semitendinosus muscle to correct for the corresponding standardized empty body weight (EBW) categories.

1. A preliminary allometric regression (Y= a × EBWb; where Y = predicted organ or carcass component weight or carcass length, b = scaling exponent or allometric coefficient, and a = constant) was calculated for each gender (entire males, EM, castrates, CA and female FE pigs) and within each dietary treatment (control, C and low protein, LP) (C-EM, C-CA, C-FE, LP-EM, LP-CA and LP-FE) and for each weight of the organs (kidney, liver), gastro intestinal tract, carcass length, carcass cuts (carcass lean cuts, defatted loin, defatted ham, defatted shoulder, belly, omental fat, subcutaneous fat, backfat, ham fat, shoulder fat) and semitendinosus muscle.
2. One average EBW was calculated per BW category from 20 to 140 kg EBW (18.3, 39.8, 56.7, 78.3, 95.9, 116.0, 133.9 kg)
3. These average EBW data were used together with the preliminary allometric equations to calculate the weights of the aforementioned traits for each gender and diet at each EBW category.
4. This preliminary equation was used to estimate the weight of organs, gastro intestinal tract, carcass cuts and semitendinosus muscle for each pig at the previously calculated average EBW.
5. The difference between the estimated weight of the organs, gastro intestinal tract, carcass cuts and semitendinosus muscle for each pig at a given EBW and the corresponding value, calculated for each average EBW (point 4), was used to correct the weight of organs, gastro intestinal tract, carcass cuts and semitendinosus muscle assuming that all pigs had the same EBW at slaughter.

**Supplementary table S1** *Analysed composition (g or MJ/kg as-fed) of the control (C) and reduced protein (LP) grower, finisher I and finisher II diets of pigs[[1]](#footnote-1)*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Grower diet (20 to 60 kg BW) | | | | |  | Finisher I diet (60 to 100 kg BW) | | | | |  | Finisher II diet (100 to 140 kg BW) | | | | | |
| Dietary treatments[[2]](#footnote-2) | C | |  | LP | |  | C | |  | LP | |  | C | |  | LP | | |
| Gender[[3]](#footnote-3) | EM | CA, FE |  | EM | CA, FE |  | EM | CA, FE |  | EM | CA, FE |  | EM | CA, FE |  | EM | CA, FE |
| Dry matter | 889 | 891 |  | 889 | 888 |  | 889 | 890 |  | 889 | 885 |  | 879 | 879 |  | 878 | 879 |
| Ash | 44 | 44 |  | 42 | 41 |  | 40 | 41 |  | 39 | 38 |  | 35 | 34 |  | 34 | 34 |
| Fat | 27 | 26 |  | 27 | 27 |  | 26 | 29 |  | 27 | 26 |  | 27 | 29 |  | 27 | 29 |
| CP | 167 | 161 |  | 137 | 130 |  | 141 | 140 |  | 119 | 113 |  | 129 | 123 |  | 104 | 102 |
| Amino acids4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lysine | 10.3 | 9.7 |  | 8.1 | 7.7 |  | 8.0 | 7.7 |  | 6.5 | 6.2 |  | 7.2 | 6.9 |  | 5.9 | 5.7 |
| Methionine | 3.4 | 3.2 |  | 2.5 | 2.4 |  | 2.5 | 2.5 |  | 1.9 | 1.8 |  | 2.2 | 2.2 |  | 1.7 | 2.0 |
| Cystine | 3.0 | 2.9 |  | 2.7 | 2.5 |  | 2.6 | 2.9 |  | 2.5 | 2.4 |  | 2.5 | 2.4 |  | 2.3 | 2.2 |
| Threonine | 7.6 | 7.3 |  | 6.0 | 5.7 |  | 6.1 | 5.9 |  | 5.0 | 4.7 |  | 5.4 | 5.3 |  | 4.4 | 4.0 |
| Tryptophan | 2.3 | 2.2 |  | 1.8 | 1.7 |  | 1.9 | 1.8 |  | 1.5 | 1.4 |  | 1.7 | 1.6 |  | 1.4 | 1.3 |
| Isoleucine | 6.9 | 6.6 |  | 5.1 | 4.8 |  | 5.6 | 5.3 |  | 4.1 | 3.9 |  | 5.0 | 4.8 |  | 3.5 | 3.5 |
| Leucine | 12.6 | 12.1 |  | 9.2 | 8.8 |  | 10.6 | 9.9 |  | 7.8 | 7.4 |  | 9.9 | 9.7 |  | 7.0 | 7.3 |
| Phenylalanine | 8.6 | 8.3 |  | 6.6 | 6.3 |  | 7.4 | 6.8 |  | 5.6 | 5.4 |  | 6.5 | 6.2 |  | 4.8 | 4.7 |
| Valine | 8.5 | 8.2 |  | 6.2 | 6.0 |  | 7.3 | 7.0 |  | 5.6 | 5.3 |  | 6.5 | 6.2 |  | 4.8 | 4.7 |
| Tyrosine | 6.0 | 5.7 |  | 4.2 | 3.9 |  | 5.0 | 4.6 |  | 3.5 | 3.4 |  | 4.4 | 4.3 |  | 3.0 | 3.0 |
| Histidine | 3.7 | 3.6 |  | 3.1 | 2.9 |  | 3.1 | 3.2 |  | 2.7 | 2.6 |  | 2.8 | 2.7 |  | 2.2 | 2.2 |
| Alanine | 7.1 | 6.8 |  | 5.4 | 5.2 |  | 6.0 | 5.8 |  | 4.7 | 4.4 |  | 5.6 | 5.5 |  | 4.1 | 4.3 |
| Arginine | 9.1 | 8.6 |  | 7.5 | 6.9 |  | 7.1 | 7.2 |  | 6.0 | 5.6 |  | 6.1 | 5.9 |  | 4.9 | 4.8 |
| Asparagine | 14.4 | 13.6 |  | 9.9 | 9.0 |  | 10.9 | 9.9 |  | 7.1 | 6.6 |  | 9.9 | 9.4 |  | 6.1 | 6.1 |
| Glutamine | 31.3 | 30.3 |  | 29.0 | 28.3 |  | 27.8 | 28.2 |  | 26.5 | 25.5 |  | 25.1 | 24.4 |  | 23.5 | 22.7 |
| Glycine | 7.3 | 7.0 |  | 5.6 | 5.3 |  | 6.2 | 6.2 |  | 5.1 | 4.8 |  | 5.4 | 5.2 |  | 4.1 | 4.1 |
| Proline | 12.8 | 12.8 |  | 11.4 | 11.5 |  | 12.3 | 12.1 |  | 11.4 | 11.1 |  | 11.0 | 10.6 |  | 10.1 | 9.5 |
| Serine | 7.7 | 7.4 |  | 6.0 | 5.6 |  | 6.5 | 6.1 |  | 5.0 | 4.8 |  | 5.8 | 5.6 |  | 4.3 | 4.3 |
| Crude fibre | 38 | 41 |  | 41 | 38 |  | 45 | 50 |  | 46 | 47 |  | 42 | 42 |  | 40 | 41 |
| ADF | 58 | 63 |  | 59 | 55 |  | 65 | 76 |  | 68 | 67 |  | 64 | 66 |  | 63 | 65 |
| NDF | 239 | 261 |  | 220 | 248 |  | 253 | 213 |  | 219 | 212 |  | 172 | 185 |  | 199 | 178 |
| Calculated energy content[[4]](#footnote-4) | | | | | | | | | | | | | | | | | |
| Digestible energy | 13.2 | 13.2 |  | 13.2 | 13.2 |  | 13.2 | 13.2 |  | 13.2 | 13.2 |  | 13.2 | 13.2 |  | 13.2 | 13.2 |
| Net energy | 9.8 | 9.7 |  | 9.8 | 9.9 |  | 9.8 | 9.7 |  | 9.8 | 9.9 |  | 9.7 | 9.7 |  | 9.8 | 9.8 |

**Supplementary table S2.** *Average weight of the empty body, kidneys and liver and gastro intestinal tract, and carcass length of female (FE), castrates (CA) and entire male (EM) pigs fed the control (C) or low CP (LP) grower (20-60 kg), finisher I (60-100 kg) and finisher II (100-140 kg) diets and slaughtered either the day of birth at 10, 20, 40, 60, 80, 100, 120 or 140 kg BW. Control diets (C) were formulated to meet nutrient requirement according to the Swiss feeding recommendations for grower finisher pigs in the respective growth periods. The low protein diets (LP) were formulated to contain, expressed as percentage of the control diets, 80% of dietary CP, lysine, methionine + cystine, threonine and tryptophan.*

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Gender | BW (kg) | Empty body weight (kg) | | Kidneys  (g) | | Liver  (g) | | Gastro intestinal tract(g) | | Carcass length (cm) | |
|  |  | C | LP | C | LP | C | LP | C | LP | C | LP |
| EM | birth | 1.4 |  | 11 |  | 40 |  | 65 |  | 22.0 |  |
|  | 10 | 8.9 |  | 41 |  | 190 |  | 538 |  | 44.5 |  |
|  | 20 | 18.3 |  | 100 |  | 486 |  | 1 335 |  | 58.3 |  |
|  | 40 | 39.8 | 36.1 | 201 | 164 | 968 | 890 | 2 413 | 2 180 | 74.3 | 73.1 |
|  | 60 | 56.7 | 59.1 | 228 | 239 | 1 241 | 1 274 | 2 874 | 2 842 | 82.3 | 84.5 |
|  | 80 | 78.3 | 78.8 | 290 | 293 | 1 407 | 1 625 | 3 653 | 3 661 | 90.1 | 95.0 |
|  | 100 | 95.9 | 95.5 | 341 | 307 | 1 732 | 1 794 | 4 026 | 4 001 | 98.3 | 97.3 |
|  | 120 | 116.0 | 115.8 | 419 | 352 | 1 868 | 1 851 | 4 502 | 4 376 | 100.8 | 103.9 |
|  | 140 | 133.9 | 137.5 | 486 | 446 | 2 110 | 2 155 | 4 836 | 5 198 | 106.3 | 107.1 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| CA | 10 | 9.0 |  | 44 |  | 197 |  | 685 |  | 46.0 |  |
|  | 20 | 19.9 |  | 109 |  | 523 |  | 1 445 |  | 58.8 |  |
|  | 40 | 38.5 | 37.8 | 185 | 175 | 926 | 903 | 2 349 | 2 318 | 70.8 | 72.8 |
|  | 60 | 60.2 | 57.7 | 251 | 217 | 1 321 | 1 209 | 2 958 | 2 814 | 82.9 | 81.3 |
|  | 80 | 77.3 | 77.3 | 287 | 247 | 1 612 | 1 457 | 3 336 | 3 464 | 89.8 | 91.0 |
|  | 100 | 97.7 | 97.1 | 314 | 296 | 1 654 | 1 511 | 3 739 | 3 768 | 95.4 | 96.8 |
|  | 120 | 114.3 | 116.2 | 310 | 324 | 1 603 | 1 542 | 3 787 | 3 795 | 100.5 | 101.0 |
|  | 140 | 136.2 | 138.0 | 349 | 318 | 1 650 | 1 748 | 4 390 | 4 216 | 105.0 | 105.4 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| FE | birth | 1.3 |  | 12 |  | 35 |  | 63 |  | 21.9 |  |
|  | 10 | 8.7 |  | 45 |  | 170 |  | 616 |  | 46.5 |  |
|  | 20 | 20.2 |  | 109 |  | 516 |  | 1 412 |  | 61.1 |  |
|  | 40 | 39.1 | 37.0 | 186 | 176 | 893 | 867 | 2 308 | 2 118 | 72.9 | 74.5 |
|  | 60 | 61.3 | 58.5 | 261 | 220 | 1 219 | 1 080 | 2 930 | 2 850 | 85.6 | 82.9 |
|  | 80 | 76.0 | 75.3 | 272 | 255 | 1 428 | 1 354 | 3 482 | 3 499 | 89.3 | 93.0 |
|  | 100 | 96.5 | 97.2 | 286 | 259 | 1 658 | 1 619 | 3 714 | 3 564 | 96.0 | 97.5 |
|  | 120 | 114.2 | 116.6 | 359 | 306 | 1 809 | 1 659 | 4 427 | 4 639 | 101.0 | 103.1 |
|  | 140 | 134.9 | 135.7 | 381 | 338 | 1 895 | 1 774 | 4 650 | 4 551 | 106.0 | 107.4 |

**Supplementary table S3.** *Average weight of the left cold carcass, the lean cuts, the percentage of the lean cuts over the left cold carcass weight, the defatted loin, the defatted ham and the defatted shoulder from the left carcass of female (FE), castrates (CA) and entire male (EM) pigs fed the control (C) or low CP (LP) grower (20-60 kg), finisher I (60-100 kg) and finisher II (100-140 kg) diets and slaughtered either the day of birth at 10, 20, 40, 60, 80, 100, 120 or 140 kg BW. Control diets (C) were formulated to meet nutrient requirement according to the standard Swiss feeding recommendations for grower finisher pigs in the respective growth periods. The low protein diets (LP) were formulated to contain, expressed as percentage of the control diets, 80% of dietary CP, lysine, methionine + cystine, threonine and tryptophan.*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | BW  (kg) | Cold carcass weight (kg) | | Lean cuts  (g)1 | | Lean cuts  (%)2 | | Loin  (g) | | Ham  (g) | | Shoulder  (g) | |
| Gender |  | C | LP | C | LP | C | LP | C | LP | C | LP | C | LP |
| EM | birth | 0.4 |  | 252 |  | 60.4 |  | 98 |  | 82 |  | 71 |  |
|  | 10 | 3.0 |  | 1 770 |  | 59.7 |  | 722 |  | 605 |  | 444 |  |
|  | 20 | 5.9 |  | 3 742 |  | 63.5 |  | 1 525 |  | 1 258 |  | 959 |  |
|  | 40 | 14.0 | 12.6 | 8 756 | 7730 | 62.7 | 61.5 | 3 830 | 3 401 | 2 840 | 2 498 | 2 086 | 1 830 |
|  | 60 | 20.7 | 21.4 | 13 154 | 13 074 | 63.4 | 61.0 | 5 800 | 5 900 | 4 310 | 4 238 | 3 045 | 2 936 |
|  | 80 | 29.0 | 28.9 | 18 091 | 17 470 | 62.5 | 60.5 | 8 179 | 8 143 | 5 809 | 5 458 | 4 103 | 3 869 |
|  | 100 | 35.8 | 35.5 | 21 780 | 21 164 | 60.9 | 59.6 | 10 313 | 9 909 | 6 680 | 6 535 | 4 788 | 4 721 |
|  | 120 | 44.1 | 43.9 | 27 065 | 26 535 | 61.4 | 60.5 | 12 782 | 12 520 | 8 250 | 8 154 | 6 033 | 5 861 |
|  | 140 | 51.2 | 52.8 | 30 798 | 29 676 | 60.1 | 56.2 | 14 445 | 14 217 | 9 531 | 9 018 | 6 822 | 6 441 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CA | 10 | 3.0 |  | 1 840 |  | 61.4 |  | 760 |  | 636 |  | 443 |  |
|  | 20 | 6.6 |  | 4 165 |  | 63.5 |  | 1 729 |  | 1 420 |  | 1 016 |  |
|  | 40 | 13.7 | 13.3 | 8 435 | 8 093 | 61.7 | 60.5 | 3 759 | 3 625 | 2 685 | 2 568 | 1 992 | 1 899 |
|  | 60 | 22.2 | 21.4 | 13 699 | 12 613 | 61.7 | 59.1 | 6 260 | 5 713 | 4 293 | 3 937 | 3 146 | 2 963 |
|  | 80 | 29.2 | 29.2 | 17 972 | 17 555 | 61.4 | 60.1 | 8 217 | 8 084 | 5 776 | 5 515 | 3 979 | 3 956 |
|  | 100 | 37.8 | 37.5 | 22 753 | 21 595 | 60.2 | 57.6 | 10 665 | 10 322 | 7 019 | 6 634 | 5 069 | 4 640 |
|  | 120 | 45.0 | 45.6 | 26 365 | 26 065 | 58.5 | 57.1 | 12 384 | 12 445 | 8 248 | 8 090 | 5 734 | 5 530 |
|  | 140 | 53.4 | 54.3 | 30 327 | 30 730 | 56.8 | 56.7 | 14 648 | 14 983 | 9 206 | 9 311 | 6 473 | 6 435 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FE | birth | 0.4 |  | 241 |  | 62.4 |  | 93 |  | 76 |  | 72 |  |
|  | 10 | 3.1 |  | 1 993 |  | 64.8 |  | 805 |  | 702 |  | 486 |  |
|  | 20 | 6.8 |  | 4 482 |  | 65.4 |  | 1 886 |  | 1 521 |  | 1 076 |  |
|  | 40 | 14.0 | 13.1 | 8 853 | 8 189 | 63.2 | 62.3 | 3 897 | 3 624 | 2 940 | 2 660 | 2 017 | 1 905 |
|  | 60 | 23.0 | 21.9 | 14 473 | 13 433 | 62.9 | 61.4 | 6 667 | 6 139 | 4 680 | 4 293 | 3 126 | 3 002 |
|  | 80 | 28.6 | 28.2 | 17 577 | 16 980 | 61.5 | 60.3 | 8 139 | 7 884 | 5 687 | 5 341 | 3 751 | 3 755 |
|  | 100 | 37.4 | 37.7 | 23 268 | 23 039 | 62.2 | 61.1 | 10 841 | 10 860 | 7 408 | 7 340 | 5 019 | 4 839 |
|  | 120 | 44.5 | 44.9 | 26 245 | 26 418 | 58.9 | 58.9 | 12 450 | 12 486 | 8 046 | 8 245 | 5 749 | 5 688 |
|  | 140 | 52.9 | 53.3 | 30 437 | 31 215 | 57.5 | 58.6 | 14 725 | 15 065 | 9 342 | 9 662 | 6 370 | 6 489 |

1Sum of the defatted loin, ham and shoulder weights obtained from the left cold carcass side.

2 Sum of the defatted loin, ham and shoulder weights expressed as weight percentage of the left cold carcass side

**Supplementary table S4.** *Average weight of the belly, the omental fat, the total subcutaneous fat, the backfat, the ham fat, the shoulder fat, and the semitendinosus muscle from the left carcass of female (FE), castrates (CA) and entire male (EM) pigs fed the control (C) or low CP (LP) grower (20-60 kg), finisher I (60-100 kg) and finisher II (100-140 kg) diets and slaughtered either the day of birth at 10, 20, 40, 60, 80, 100, 120 or 140 kg BW. Control diets (C) were formulated to meet nutrient requirement according to the standard Swiss feeding recommendations for grower finisher pigs in the respective growth periods; low protein diets (LP) were formulated to contain, expressed as percentage of the control diets, 80% of dietary CP, lysine, methionine + cystine, threonine and tryptophan.*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Gender | BW  (kg) | Belly  (g) | | Omental fat  (g) | | Subcutaneuos fat (g)1 | | Backfat  (g) | | Ham fat  (g) | | Shoulder fat  (g) | | Semitendinosus muscle (g) | |
|  |  | C | LP | C | LP | C | LP | C | LP | C | LP | C | LP | C | LP |
| EM | birth | 56 |  | 2 |  | 65 |  | 25 |  | 20 |  | 20 |  | 2.2 |  |
|  | 10 | 466 |  | 39 |  | 423 |  | 203 |  | 106 |  | 114 |  | 27.5 |  |
|  | 20 | 1 011 |  | 86 |  | 662 |  | 332 |  | 137 |  | 193 |  | 61.7 |  |
|  | 40 | 2 473 | 2 326 | 209 | 254 | 1 662 | 1 503 | 929 | 788 | 317 | 303 | 416 | 412 | 170.1 | 136.3 |
|  | 60 | 3 766 | 3 942 | 296 | 464 | 2 390 | 2 775 | 1 303 | 1 538 | 471 | 551 | 616 | 686 | 217.5 | 250.5 |
|  | 80 | 5 251 | 5 490 | 625 | 803 | 3 728 | 3 900 | 2 108 | 2 233 | 746 | 715 | 874 | 952 | 341.7 | 318.1 |
|  | 100 | 6 405 | 6 746 | 861 | 1 137 | 5 376 | 5 298 | 3 269 | 3 113 | 929 | 909 | 1 178 | 1 276 | 411.6 | 398.1 |
|  | 120 | 8 018 | 7 866 | 1 189 | 1 455 | 6 399 | 6 694 | 3 778 | 3 972 | 1 161 | 1 156 | 1 460 | 1 566 | 525.5 | 496.2 |
|  | 140 | 9 790 | 10 079 | 1 375 | 2 104 | 7 648 | 9 671 | 4 545 | 6 077 | 1 362 | 1 731 | 1 740 | 1 862 | 651.2 | 545.3 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CA | 10 | 487 |  | 45 |  | 388 |  | 192 |  | 99 |  | 97 |  | 27.4 |  |
|  | 20 | 1 091 |  | 102 |  | 794 |  | 410 |  | 165 |  | 219 |  | 74.1 |  |
|  | 40 | 2 522 | 2 447 | 283 | 292 | 1 768 | 1 800 | 1 012 | 1 006 | 359 | 354 | 397 | 439 | 149.0 | 141.7 |
|  | 60 | 4 054 | 3 916 | 517 | 568 | 3 115 | 3 208 | 1 767 | 1 823 | 603 | 650 | 746 | 735 | 248.1 | 230.5 |
|  | 80 | 5 330 | 5 351 | 701 | 857 | 4 155 | 4 341 | 2 422 | 2 515 | 817 | 854 | 917 | 971 | 333.5 | 325.6 |
|  | 100 | 6 989 | 7 364 | 1 088 | 1 518 | 5 767 | 6 239 | 3 397 | 3 789 | 1 097 | 1 103 | 1 273 | 1 347 | 438.9 | 413.8 |
|  | 120 | 8 546 | 8 667 | 1 747 | 1 887 | 7 257 | 8 131 | 4 462 | 4 976 | 1 432 | 1 508 | 1 362 | 1 647 | 525.1 | 511.7 |
|  | 140 | 10 121 | 10 419 | 2 615 | 2 911 | 9 885 | 10 178 | 6 136 | 6 137 | 1 817 | 2 027 | 1 932 | 2 013 | 604.4 | 594.7 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FE | birth | 50 |  | 2 |  | 57 |  | 19 |  | 19 |  | 19 |  | 0.9 |  |
|  | 10 | 473 |  | 35 |  | 375 |  | 174 |  | 93 |  | 108 |  | 29.3 |  |
|  | 20 | 1 116 |  | 89 |  | 762 |  | 412 |  | 170 |  | 180 |  | 74.1 |  |
|  | 40 | 2 426 | 2 408 | 232 | 243 | 1 701 | 1 586 | 947 | 841 | 363 | 333 | 391 | 412 | 133.2 | 161.3 |
|  | 60 | 4 291 | 4 099 | 461 | 559 | 2 756 | 2 788 | 1 553 | 1 543 | 569 | 582 | 634 | 664 | 292.1 | 242.2 |
|  | 80 | 5 312 | 5 367 | 732 | 927 | 3 791 | 3 830 | 2 188 | 2 230 | 816 | 834 | 787 | 766 | 359.7 | 329.8 |
|  | 100 | 6 854 | 6 772 | 1 064 | 1 324 | 5 351 | 5 501 | 3 196 | 3 314 | 1 030 | 1 061 | 1 125 | 1 126 | 477.4 | 478.7 |
|  | 120 | 8 599 | 8 560 | 1 364 | 1 819 | 6 989 | 7 040 | 4 076 | 4 235 | 1 455 | 1 453 | 1 459 | 1 353 | 492.8 | 524.1 |
|  | 140 | 10 158 | 10 184 | 2 396 | 2 223 | 9 269 | 8 805 | 5 645 | 5 341 | 1 852 | 1 830 | 1 772 | 1 633 | 613.1 | 596.5 |

1 Sum of subcutaneous fat from the shoulder, back and ham from the left carcass side.

1. Grower, finisher I and finisher II diets were offered *ad libitum* from 20 to 60, from 60 to 100 and from 100 to 140 kg BW, respectively. [↑](#footnote-ref-1)
2. C = control diets formulated to meet nutrient requirements according to the Swiss feeding recommendations for growing finishing pigs in the grower, finisher I and finisher II period; LP = reduced protein diet formulated to contain, expressed as percentage of the control diets, 80% of dietary CP, lysine, methionine + cystine, threonine and tryptophan. [↑](#footnote-ref-2)
3. EM = entire males; CA = castrates; FE = females [↑](#footnote-ref-3)
4. The digestible and net energy coefficients from each feed ingredient were obtained from the Swiss (Agroscope, 2015) and French (Noblet *et al*. 2003) databases, respectively. Taking into account the relative amount of each feed ingredient in the diet, digestible and net energy content were calculated [↑](#footnote-ref-4)