**Supplementary Tables**

**Table S1 Nutrient content of the diet for laying geese (air-dry basis, %)**

|  |  |
| --- | --- |
| Ingredients, % | Nutrient levels |
| Cron | 50.57 | Crude protein, % | 16.18 |
| Soybean meal | 24.79 | ME, MJ/Kg | 11.75 |
| Paddy | 5.06 | Ca, % | 2.62 |
| Alfalfa meal | 7.09 | AP, % | 0.37 |
| Soybean oil | 4.01 | Lys, % | 0.92 |
| CaHPO4 | 1.31 | Met, % | 0.31 |
| Limestone | 6.03 | Trp, % | 0.22 |
| Met | 0.2 | Thr, % | 0.63 |
| NaCl | 0.3 | Arg, % | 0.97 |
| Choline chloride | 0.1 |  |  |
| Premix | 0.4a |  |  |

Note: a The premix containing (per kilogram basal diet): VA 6000 IU, VB1 1.2 mg, VB2 2.4 mg, VB6 3mg, VB12 0.01 mg, VD3 1500 IU, VE 10 IU, VK3 2.4 mg, biotin 0.5mg, calcium pantothenate 10 mg, nicotinic acid 20 mg, Cu 8mg, Fe 85 mg, I 1mg, Mn 85 mg, Se 4.5 mg, Zn 80 mg.

**Table S2 Primers used in MALDI-TOF MS**

|  |  |  |  |
| --- | --- | --- | --- |
| **SNP\_ID** | **2nd-PCRP** | **1st-PCRP** | **UEP\_SEQ** |
| Chr5:12543049 | TAGAAATAGACTCCCCCACC | GCCTCGCAGAGCTTTAAAAC | agAGTTTTTCTCTAATTGATGATGTA |
| Chr1: 22653754 | ATCACCTGAATTAGGCTGAG | TCCATCAGACTTCCAGTCTC | cgaaAGTTGACGAAAGCAGATATCCT |
| Chr1: 22636411 | CAGCGTGAATGAAAAGGTGC | AGGAAGATGAGGAGTAACCC | CTCCTGAATTTATTAGAATAGACATT |
| Chr1: 22653655 | AGGAGACTGGAAGTCTGATG | AATTTCTGACCAAGACCAGC | ATTATTTATGGACTTTTTACCAAA |
| Chr1: 22657992 | AAGAAACCCCTCTGAAGAGC | CTCTTCTTGTATCAATGGTGG | GCATACTCAAAGGAAGAATGTTA |
| Chr1: 22635874 | GGAGTGTGGAAAGAAAGTTG | CTGAGATAAGGCACATTCTG | cTAATGCCTTTCAAGTACTCT |
| Chr5: 30926739 | TCGTCGGGATCGGGAATTTG | TTCCGCAGAAACCATAACCC | TGCACGTAGATATCCGT |