**Table 6**. Iodine (I) balance in lactating Jersey dairy cows fed incremental amounts of kelp meal or monensin (MON)

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Kelp meal | | | |  |  |  | Contrasts (*P*-values)1 | | | |
| Item2 | 0 g | 57 g | 113 g | 170 g |  | MON | SEM | Linear | Quadratic | Kelp vs. MON | 170 g Kelp vs. MON |
| Iodine balance, mg/d |  |  |  |  |  |  |  |  |  |  |  |
| Total I intake | 8.6 | 28.7 | 48.6 | 68.9 |  | 10.4 | 2.34 | <0.001 | 0.95 | <0.001 | <0.001 |
| I intake from kelp | 0.0 | 20.3 | 40.2 | 60.5 |  | 0.0 | 2.32 | <0.001 | 1.00 | <0.001 | <0.001 |
| Milk I | 7.3 | 14.4 | 19.5 | 24.6 |  | 6.1 | 1.77 | <0.001 | 0.54 | <0.001 | <0.001 |
| Fecal I | 20.5 | 48.1 | 60.6 | 86.6 |  | 21.1 | 7.76 | <0.001 | 0.91 | <0.001 | <0.001 |
| Urinary I | 5.1 | 14.1 | 18.0 | 24.8 |  | 6.4 | 1.97 | <0.001 | 0.59 | <0.001 | <0.001 |
| Serum I, ng/mL | 106 | 208 | 304 | 363 |  | 109 | 20.2 | <0.001 | 0.09 | <0.001 | <0.001 |
| Serum TSH, ng/mL | 2.61 | 3.07 | 3.08 | 2.83 |  | 2.94 | 0.17 | 0.40 | 0.06 | 0.79 | 0.69 |
| Serum T3, ng/mL | 1.08 | 1.03 | 1.01 | 0.97 |  | 1.02 | 0.071 | 0.27 | 0.97 | 0.79 | 0.57 |
| Serum T4, ng/mL | 40.6 | 40.5 | 43.4 | 39.1 |  | 43.0 | 3.3 | 0.88 | 0.41 | 0.49 | 0.27 |

1Linear and quadratic effects of incremental amounts of kelp meal (0, 57, 113, and 170 g/d); Kelp vs. MON = mean of the 3 kelp meal treatments vs. the mean of the MON treatment; 170 g Kelp vs. MON = mean of the treatment consisting of 170 g of kelp meal vs. MON treatment.

2TSA = thyroid stimulating hormone; T3 = triiodothyronine; T4 = thyroxin.