**Supplementary material**

Table. 1 The ratio and nutritional content of plants eaten by wild musk deer (*Moschus sifanicus*) of Helan Mountain in winter.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  **Plant species** | **Frequeny** | **Crude protein(%)** |  **Ether extract(g/kg)**  | **Fiber (%)** |
| *Picea crassifolia* | 4.77 | 3.78  | 7.63  | 22.07  |
| *Juniperus rigida* | 4.63 | 4.93  | 31.38  | 45.55  |
| *Sabina vulgaris* | 0.06 | 6.21  | 40.15  | 32.04  |
| *Salix characta* | 1.09 | 3.15  | 9.17  | 22.18  |
| *Ostryopsis davidiana*  | 2.39 | 10.90  | 29.34  | 13.77  |
| *Urtica dioica*  | 3.54 | 10.66  | 12.84  | 12.40  |
| *Berberis caroli*  | 1.25 | 9.35  | 24.54  | 38.35  |
| *Ribes pulchellum*  | 1.3 | 4.81  | 24.45  | 29.49  |
| *Spiraea tomentulosa*  | 0.31 | 4.75  | 27.09  | 37.27  |
| *Cotoneaster acutifolius* | 1.13 | 4.61  | 2.34  | 38.84  |
| *Pentaphylloides parvifolia* | 0.37 | 22.91  | 2.13  | 62.59  |
| *Pentaphylloides davurica* | 2.53 | 5.27  | 44.72  | 34.91  |
| *Sanguisorba alpina* | 3.97 | 9.86  | 19.27  | 27.04  |
| *Prunus sibirica* | 4.92 | 3.89  | 15.62  | 27.75  |
| *Prunus mongolica*  | 3.93 | 5.73  | 9.76  | 53.54  |
| *Caragana stenophylla* | 4.31 | 10.81  | 2.60  | 36.74  |
| *Astragalus chingianus* | 11.33 | 6.12  | 11.44  | 46.14  |
| *Syringa oblata* | 2.06 | 4.14  | 3.60  | 50.13  |
| *Nepeta sibirica*  | 2.13 | 8.36  | 2.11  | 38.27  |
| *Leptodermis ordosica* | 6.47 | 3.45  | 13.54  | 47.22  |
| *Lonicera edulis* | 13.68 | 5.48  | 13.17  | 15.49  |
| *Lonicera microphylla* | 2.96 | 4.91  | 14.19  | 29.10  |
| *Erigeron acer* | 0.01 | 8.63  | 6.27  | 18.24  |
| *Saussurea alaschanica* | 2.04 | 7.82  | 10.54  | 37.86  |
| *Dendranthema chanetii* | 1.48 | 0.89  | 49.26  | 35.52  |
| *Roegneria barbicalla* | 5.08 | 8.31  | 4.32  | 45.92  |
| *Carex pediformis* | 10.93 | 6.33  | 6.22  | 44.36  |
| *Tuber mdicum* | 0.69 | 25.55  | 85.71  | 12.11  |
| *Geopora cooperi*  | 0.01 | 31.61  | 18.03  | 18.30  |
| *Cortinarius purpurascens* | 0.62 | 20.77  | 7.23  | 17.42  |

Table. 2 .Nutritional content of the main food of captive musk deer per 100 grams.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Species** | **Protein(%)** | **Crude fiber(%)** | **Carbohydrate(%)** | **Fat(%)** |
| **Carrot** | 0.8 | 2 | 5 | 0 |
| **Corn** | 8 | 6.4 | 78 | 3.8 |
| **Soya bean** | 35 | 15.5 | 25 | 13 |
| **wheat bran** | 15 | 31 | 61 | 4 |
| **Apricot leaves** | 13.2 | 9.8 | 52.2 | 5.7 |
| **Elm leaves** | 6.6 | 11.3 | 48.7 | 5.0 |
| **Acacia leaves** | 19.6 | 15.2 | 42.7 | 2.4 |
| **Peach leaves** | 13.7 | 12.4 | 52.6 | 6.2 |

**\*** **The nutrient contents of all the substances listed above are for reference only, as there is a big difference of the** **nutrient contents for one species between different regions and different varieties of plants. All of our data are from researches.**