

Feeding Browse To Large Zoo Herbivores: How Much Is “A Lot”, How Much Is “Sufficient”?

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Diet evaluations in captive browsers are often confounded by the fact that the amount of browse offered is difficult to quantify, especially if whole branches are fed. For a diet survey in captive moose (*Alces alces*), we established correlations between the diameter at point of cutting of a branch and the amount of foliage and edible twigs on it. Eight different species of trees were investigated. The correlations were allometric, and highly significant. For all tree species combined, e.g., the correlations of the total weight of a branch (y_1) and the weight of its leaves (y_2) with the diameter at point of cutting (x) were $y_1 = 0.84 x^{1.94}$ and $y_2 = 0.48 x^{2.48}$, respectively. Given the according equations, it was only necessary to measure the diameter of the branches fed in the institutions that participated in the diet survey. Examples are given for diet evaluations based on the estimation of edible browse derived from the equations.

Key words: leaf-weight predictability; captive diets