



蓝狐对11种鲜饲料原料中干物质和粗蛋白质表观消化率的研究

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Apparent Digestibility of Dry Matter and Crude Protein of 11 Kinds of Fresh Ingredients in Blue Foxes

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摘要 为结合当地的特种经济动物蓝狐的品种资源优势, 有根据地选择合理的饲料原料, 科学合理配制蓝狐饲料, 节约饲料成本, 提高养殖生产效益, 本试验测定蓝狐对常用动物源性鲜饲料[海杂鱼、鸡骨架、鸡蛋(带壳)、牛肉、白条鸡、鲢鱼、白鲢、鸡杂、鸡肝、牛肝和黄花鱼]的干物质(DM)和粗蛋白质(CP)的表观消化率, 试验分别选取120只健康成年雄性蓝狐, 随机分成12组, 每组10个重复, 每个重复10只, 分别利用直接法测定了海杂鱼、鸡骨架、鸡蛋、牛肉和白条鸡的DM及CP的表观消化率, 用套算法测定了鲢鱼、白鲢、鸡杂、牛肝、鸡肝和黄花鱼的DM及CP的表观消化率。试验结果表明: 直接法测定的5种鲜饲料DM表观消化率差异显著($P < 0.05$), 海杂鱼、鸡骨架、鸡蛋、牛肉和白条鸡DM表观消化率分别为84.39%、87.24%、61.14%、94.64%和88.12%, 而其CP表观消化率差异不显著($P > 0.05$), CP表观消化率分别为94.60%、91.19%、91.24%、97.25%和96.69%; 套算法测定的6种鲜饲料DM和CP表观消化率差异显著($P < 0.05$), 鲢鱼、白鲢、鸡杂、牛肝、鸡肝和黄花鱼DM表观消化率分别为70.39%、59.82%、71.63%、70.56%、79.17%和75.27%, CP表观消化率分别为83.06%、77.28%、89.88%、68.26%、75.58%和69.13%。由此得出, 蓝狐对这11种鲜饲料均具有较好的消化能力, 其中海杂鱼、鸡骨架、鸡蛋、牛肉、白条鸡、鲢鱼、鸡杂可作为蓝狐的优质蛋白质来源饲料, 白鲢、牛肝、鸡肝、黄花鱼要根据饲料的适口性、营养消化率等实际情况确定其在蓝狐饲料中所占的比例。

关键词: 蓝狐 粗蛋白质 干物质 表观消化率

Abstract: To measure the apparent digestibility of dry matter (DM) and crude protein (CP) of different ingredients for blue foxes, one hundred and twenty healthy male blue foxes in replacement period with similar body weight and age, were selected and randomly divided into 12 groups of 10 each. The ingredients with better palatability (trash fish, chicken carcasses, egg, beef, and chicken) were measured the digestibility of DM and CP in blue foxes by the method of feeding directly, while the ingredients with common palatability (bitterling, silver carp, chicken giblets, chicken liver, cow liver and yellow croaker) were measured by a difference method. The results showed that: 1) The apparent digestibility of DM in ingredients measured by the method of feeding directly had a significant difference ($P < 0.05$), however, the apparent digestibility of CP had no significant difference ($P > 0.05$), and the apparent digestibility of DM in trash fish, chicken carcasses, egg in the shell, beef and chicken were 84.39%, 87.24%, 61.14%, 94.64% and 88.12%, respectively; the apparent digestibility of CP in those feedstuffs were 94.60%, 91.19%, 91.24%, 97.25% and 96.69%, respectively. 2) The apparent digestibility of DM and CP in ingredients measured by the difference method had a significant difference ($P < 0.05$), and the apparent digestibility of DM in bitterling, silver carp, chicken giblets, cow liver, chicken liver and yellow croaker were 70.39%, 59.82%, 71.63%, 70.56%, 79.17% and 75.27%, respectively; the apparent digestibility of CP in those feedstuffs were 83.06%, 77.28%, 89.88%, 68.26%, 75.58%, 69.13% and 94.60%, respectively. In conclusion, blue foxes have good digestive ability to the experimental ingredients, and the trash fish, chicken carcasses, egg, beef, chicken, bitterling and chicken giblets are of high quality protein ingredients for blue foxes. Moreover, for silver carp, chicken liver, cow liver and yellow croaker, their proper supplemental proportions in diets of blue foxes depend on their palatability, nutrients digestibility and their influence on animal health. [Chinese Journal of Animal Nutrition, 2011, 23 (9) : 1519 -1526]

Keywords: blue fox, crude protein, dry matter, apparent digestibility

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