

## **CASTOR BEAN MEAL DETOXIFIED BY EXTRUSION IN DAIRY GOAT DIETS ON MILK FATTY ACID PROFILE**

SANTOS,S.F.<sup>1</sup>, CÂNDIDO,M.J.D.<sup>2</sup>, ASCHERI,J.L.R.<sup>3</sup>, OLIVEIRA,L.S.<sup>4</sup>, FERNANDES,M.F.<sup>5</sup>,  
FONTELES,N.L.O.<sup>6</sup>, MAPURUNGA,P.A.<sup>7</sup>, GONÇALVES,J.L.<sup>8</sup>, *BOMFIM,M.A.D.*<sup>9</sup>

1. UFC, Universidade Federal do Ceará; 2. UFC, Universidade Federal do Ceará; 3. CTAA, Embrapa Agroindústria de Alimentos; 4. CNPCO, Embrapa Caprinos e Ovinos; 5. UFPB, Universidade Federal da Paraíba; 6. UVA, Universidade Estadual Vale do Acaraú; 7. UVA, Universidade Estadual Vale do Acaraú.. 8. UVA, Universidade Estadual Vale do Acaraú.. 9. CNPCO, Embrapa Caprinos e Ovinos. mabomfim@cnpic.embrapa.br

### **Abstract**

This present work was carried out to evaluate the different levels of replacement of soybean meal by castor bean meal detoxified by extrusion on fatty acid profile of goat's milk. The experimental design was a completely randomized with four treatments based on levels of soybean meal replacement by castor bean meal detoxified by extrusion as follow: 0.0, 33.0, 66.0 and 100.0%, with five repetitions. There was no influence of treatments on milk production ( $P>0.05$ ) such means was 1.081 kg/day. Also no effects were observed on milk composition ( $P>0.05$ ). The means were 28.57 g.kg<sup>-1</sup> (crude protein), 27.15 g.kg<sup>-1</sup> (fat), 26.04 mg.dL<sup>-1</sup> (urea nitrogen), 39.87 g.kg<sup>-1</sup> (lactose), 103.66 g.kg<sup>-1</sup> (total solids), 76.42 g.kg<sup>-1</sup> (total solids non fat). The increase of replacement of soybean meal by castor bean detoxified on butiric acid (C4:0) content demonstrated a quadratic effect, ( $P <0.05$ ). There were no effect of treatment for others individual fatty acids. Furthermore, no effects were observed to saturated, unsaturated, polyunsaturated, essential fatty acid or their ratios. Castor bean meal detoxified by extrusion can replace 100% of soybean meal in dairy goat diets without negative effects on milk quality.