Production of Copaíba (Copaífera spp.) Oleoresin in Acre State, Brazil

**Lúcia Helena de O. Wadt<sup>1</sup>**, Karina Martins<sup>2</sup>, Maria das Graças C. da Silva<sup>3</sup>, Rocío C. Ruiz<sup>4</sup>, Evandro A. de Araújo<sup>3</sup>

Most Copaifera tropical tree species produce oleoresins in their trunks and stems, which are used as medicine. Copaiba oleoresin production and its overall quality vary among species and individuals. Few studies have tried to evaluate the optimal harvest levels and intervals. This information is necessary in order to define rules of sustainable management. In Acre, local people recognize five C. reticulata morphotypes ("yellow", "red", "white" and two kinds of "black" copaiba), which are defined in accordance with bark and leaf characteristics. This study compared the occurrence and differences in DBH among C. reticulata morphotypes in 41 properties of three municipalities, totaling 621 copaiba trees. We also analyzed collection data (volume of oleoresin obtained in a 24-hour period) of 246 copaiba trees from 25 properties. In spite of the predominance of "black" (47.3%) and white (31.7%) copaiba trees, the proportion of the morpohtypes differed among sites ( $\chi^2 = 48.77$ ; p = 0.00). "Black" and "red" trees had the largest average DBH and the "white" ones showed the smallest DBH values (F = 15.07; p = 0.00). The average proportion of producing trees was 28% and did not differ among types. The volume of oleoresin collected varied from 10mL to 21L. Considering only the effectively producing trees (n = 69), the average volume of oleoresin exploited was 3.10 (±4.31) L/tree. In spite of the individual variation, the difference in production among type was significant (F = 3,327; p = 0,025). "White" copaibas were considered the best ones.

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Contact Information: Lúcia Helena de Oliveira Wadt. Embrapa Acre. BR 364 km 14 Cx. P. 321 Rio Branco\_AC 69908-970 Brazil. Phone: +5568-3212-3258; Email: lucia@cpafac.embrapa.br

<sup>&</sup>lt;sup>1</sup>Embrapa Acre, Rio Branco, AC, Brazil

<sup>&</sup>lt;sup>2</sup>Universidade Federal de São Carlos, Sorocaba, SP, Brazil

<sup>&</sup>lt;sup>3</sup>Centro de Trabalhadores da Amazônia, Acre, Brazil

<sup>&</sup>lt;sup>4</sup>Secretaria Adjunta de Floresta e Extrativismo da Secretaria do Estado do Meio Ambiente e Desenvolvimento Sustentável do Amazonas, Amazonas, Brazil