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Chromosome number of acai palm (*Euterpe oleracea* Mart.)

Oliveira, LC[1]; Lima, GO[1]; Rodrigues, MS[1]; Torres, GA[1]; Davide, LC[1]; Oliveira, MSP[2]

[1] Cytogenetic Laboratory – Biology Department, Lavras Federal University
[2] Molecular Genetic Laboratory – Agroforestry Research Centre of Oriental Amazon, Brazilian Enterprise of Agricultural Research
lud.oliveira@gmail.com

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Acai palm (*Euterpe oleracea* Mart.), a tropical palm from Amazon, is known internationally due to its berries and palm heart. The chromosomal complement of this species is controversial and little understood, presenting a chromosomal variation between 26 and 36 chromosomes. This information is crucial for preservation, use and manipulation of the germplasm in genetic conservation and breeding programs – especially for the obtention of intra and inter-specific hybrids. Thus, the aim of this work was to determine the chromosomal number of *E. oleracea* by counting the mitotic and meiotic chromosomes. The seeds and rachillae used in the analyses were collected from plants available at the germplasm bank of Agricultural Research Centre (CPATU) at *Embrapa Amazônia Oriental* in Belém, Pará state, Brazil. For the obtention of mitotic metaphase, the seeds were germinated under germination paper constantly moistened with distilled water in BOD at 30º C and with 12-hour photoperiod. After the germination, the radicles were pre-treated with 2mM 8-hydroxyquinoline for 5 hours under refrigeration for inhibiting the mitotic fuse. Afterwards, it was used Pectinase/Celulase 50/100U at 37 ºC for 5 hours to digest the cell wall. The slides were prepared using the smear technique in acetic acid (45%) and stained with Giemsa (5%). For the meiotic analysis, the rachillae were fixed in ethanol:acetic acid (3:1) and stored at -20º C. The slides were prepared using the smear technique and stained in propionic-carmine (1%). The mitotic metaphases confirmed 2n=36 chromosomes, which were distinguished by their length and the centromere position. Such counting was corroborated by the twenty-five meiocytes observed during the diakinesis as they have presented 18 bivalents. Conclusion: *Euterpe oleracea* Mart. has 2n=36 chromosomes.
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