



MSI.6 C.A. Fernandes-Santos: Prospecting and morphological characterization of Brazilian *Psidium* germplasm

Prospecting and morphological characterization of Brazilian *Psidium* germplasm

C.A. Fernandes-Santos¹, J.M. Cunha-Castro¹, F. de França-Souza², A. Alcântara-Vilarinho³, F.R. do Ferreira⁴, J. Gomes-Pádua⁴, R.M. Estigarribia-Borges¹, R.L. Barbieri⁵, A.d.G. Claret de Souza⁶ and M. Amorim-Rodrigues¹

¹Embrapa Semi-Árido. BR 428, Km 152, Zona Rural - Caixa Postal 23. Petrolina, PE - Cep: 56302-970, Brazil

²Embrapa - CPAFRO. BR 364 - Km 5,5 - Zona Rural - Caixa Postal 406. Porto Velho, RO - Cep: 78900-970, Brazil

³Embrapa - CPAFRR. BR-174, Km 8 - Distrito Industrial. Boa Vista, RR - Cep 69301-970..

⁴Embrapa Recursos Genéticos e Biotecnologia - Parque Estação Biológica - PqEB - Av. W5 Norte (final). Caixa Postal 02372 - Brasília, DF - Cep: 70770-900, Brazil

⁵Embrapa Clima Temperado. Rodovia BR 392, km 78. Caixa Postal 403 - Pelotas, RS - Cep: 96001-970, Brazil

⁶Embrapa Amazônia Ocidental. Rodovia AM-10, Km 29. Caixa Postal 319 - Manaus/AM- Cep: 69010-970, Brazil

Email: casantos@cpatsa.embrapa.br

A comprehensive germplasm prospecting activity was carried out in different ecoregions of ten Brazilian States in order to collect and characterize germplasm of *Psidium guajava* L. and other *Psidium* species, known as araçá. Ecogeographic sampling areas were defined based on ecogeographical zoning and vegetation maps. The accessions were characterized for 40 descriptors, according to International Union for the Protection of New varieties of Plants (UPOV) guidelines. In total, 119 accessions of guava and 40 accessions of araçá were sampled and characterized for 35 different Brazilian ecoregions. The most invariable descriptors for both guava and araçá were colour of young shoots, leaf pubescence on lower side, leaf length and width of blade, leaf variegation,



fruit relief of surface, fruit longitudinal ridges and grooves and evenness of colour flesh of fruits. A large majority of araçá accessions presented leaf veins of wide spacing, in contrast to the guava accessions that presented medium to close spacing. Most fruits of araçá accessions were classified as small, while most fruits of guava accessions were grouped into the class of medium. For the flesh fruit colour, 91% of araçá were grouped as cream and white, while 58% of guava accessions presented pale pink, pink and dark pink colours. These fruit differences among wild *Psidium* species and guava suggested that the fruit traits have been the most altered trait by artificial selection.