First report of groundnut ringspot virus in *Physalis angulata* L.

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Physalis angulata L. (family Solanaceae), known as camapu or juá-de-capote in Brazil, is a medicinal plant with edible fruits native to the Americas. In August of 2017, many camapu plants presented symptoms characteristic of orthospoviruses, such as branch and leaf necrosis, leaf deformation and necrotic rings, at a tomato plantation located in Altamira (S3°16'094", W52°23'38.4"), in the state of Pará, northern Brazil. Total nucleic acids were extracted from two samples of camapu using the protocol of Gibbs and Mackenzie (1997). Subsequently, RT-PCR was performed using the universal primer pair for tospovirus species BR60 (5' AGAGCAATCGTGTC A 3'), designed in the 3' terminal 15 nucleotides of the non-translated region of S RNA, and BR65 (5' ATCAAGCCTTCTGAAAGTCAT 3'), designed in the N gene, at nucleotide positions 433–453 (Eiras et al. 2001). The 408 bp fragment was sequenced and analyzed using the programs Blast, ClustalW, and Mega 7.0. Results showed the presence of groundnut ringspot virus (GRSV) with nucleotide and amino acid identity of 96–98%, and 98–100%, respectively, with other GRSV sequences available in GenBank. GRSV isolate Br:Para3 (GenBank accession No. MK501381) grouped with other GRSV isolates in a phylogenetic analysis using Bayesian inference, with a posterior

probability of 1. The symptomatic leaves infected with GRSV were macerated in potassium phosphate buffer solution, pH 7.2, and the extract was transmitted to five plants of each Solanaceae host species cultivated under greenhouse conditions for 20 days to observe the emergence of symptoms. Plants of *P. angulata*, *Datura stramonium*, and *Nicotiana tabacum* 'TNN' reacted with symptoms of systemic necrosis. This is the first report of GRSV infection of camapu. It suggested that camapu can serve as a source of GRSV inoculum for other cultivated plants such as tomato plants.

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