CYANIDE CONTENTS IN LEAF TISSUES OF *Manihot* SPECIES WITH FORAGE POTENTIAL

Antonio RP[1], Lira IC de SA[1,2], Santos JD da S[1,3], da Silva Neto JL[1,3].

[1]Embrapa Tropical Semi-Arid, Zip Code: 56302-970, Petrolina, PE, Brazil. [2]Agronomy Department Federal Rural University of Pernambuco, Zip Code: 52171-900, Recife, PE, Brazil. [3]State University of Pernambuco, Zip Code: 56328-903, Petrolina-PE, Brazil.

In northeast Brazil, various species of the genus *Manihot* are used in ruminant feeding as hay orsilage. However, when the animals are fed with fresh leaves intoxication can occur by hydrocyanic acid (HCN). There is evidence that high HCN content is related to resistance of these species to pests and diseases. The cassava (*M. esculenta* Crantz), best known species of the genus and used for cooking, can also be used in animal feeding. Thus, the aim of this study was to evaluate the hydrocyanic acid content in leaves of *Manihot* genus accessions with potential to animal feeding. Were evaluated 58 accessions and varieties of the genus *Manihot* (13 cassava cultivars used for human consumption, 30 accesses from the Embrapa Tropical Semi-Arid Cassava Regional Germoplasm Bank and 15 accessions of wild *Manihot* species from the Embrapa Tropical Semi-Arid collection). These genotypes were previously selected for forage characters. Evaluations of HCN contents were performed six months after planting. Samples composed of 2 grams of leaf tissue were collected from the middle part of the plant. For determination of the HCN content, it was used the alkaline picrate method. The analyzes were performed in triplicate. The data were submitted to variance analysis comparing the averages by the Scott and Knott test (5%). There were significant differences among the studied accessions. All of cassava varieties used for cooking showed HCN content < 50 ppm. The cultivars used for the production of flour had levels > 100 ppm but < 200 ppm. The largest HCN contents were observed in accessions of wild species, which showed HCN content > 400 ppm. Plants with high HCN content will be used to obtain interspecific hybrids between cassava and its wild relatives in order to get productive genotypes resistant to pests and diseases and adapted to the Brazilian semi-arid region.

Corresponding author: Rafaela Priscila Antonio, rafaela.antonio@embrapa.br