ABSTRACT
The Colombian variety CM6740-7 and four accessions selected from the CELOS cassava field genebank are being further evaluated at the Tijgerkreek West experimental open field in Saramacca. The area has been tilled in well drained, 7 m wide, cambered beds consisting of loamy, fine textured sand, characteristic for the sandy soil sites of this young coastal and cultivated area. The characterization focuses on valuable agronomic traits with regard to the mechanized production of roots with white parenchyma followed by the processing into flour or starch. Stalks with five nodes were cut from primary and secondary stems from healthy, one year old parental plants and were planted horizontally at a density of 10,000 plants ha⁻¹. The first growing cycle started in August 2014. The experimental layout allows for harvests and observations after growing seasons of 10, 12 and 14 months, respectively. Traits influencing the multiplication rate and the suitability for mechanized planting and harvesting will be characterized by measuring related stem, node, branching and root system characteristics. Decision making traits for processing will be measured, analyzed or calculated, such as (commercial) root yield, harvest index, dry matter content, specific gravity, cyanide and starch content and post harvest deterioration. The vulnerability to stress caused by occasional occurring soil water logging, drought, diseases and competition will be observed and assessed. The most beneficial growing season length for each accession and adaptability to different cultivation calendars can be evaluated. The relationship between measured dry matter content (oven dry method) and specific gravity (balance method) will be calculated. In general, after two subsequent growing cycles, the data will allow to choose for more appropriate genetic material and as such will support further development and innovation of the Surinamese cassava root production sector and specific industrial processing chains.

INTRODUCTION
The development of the cassava root production and processing chain will benefit from an appropriate choice of genetic material adapted to specific production environments, a mechanized cultivation system and specified processing demands. The identification and further characterization of cassava genebank accessions with valuable agronomic traits for the mechanized production of roots will support the development of the cassava agribusiness chain in Suriname.

MATERIAL AND METHODS
Based on preliminary gathered data, three Comewijnese accessions (rn015, rn018, rn028) and one from Para (rn145) have been selected and will be compared to the Colombian variety CM6740-7 during two growing cycles; the first growing cycle started August '14 and will last 10, 12 and 14 months depending on the plot.

All chosen accessions and the Colombian variety are characterized by white root parenchyma, tall first and or secondary stems and a 12 month growing season. Primary and secondary stems from healthy, vigorously growing and one year old parental plants have been selected in the CELOS cassava field genebank and experimental fields in Saramacca.

Those stems were cut by saw blade in stalks with 5 nodes, treated with a bactericide/fungicide and were planted horizontally at a density of 10,000 plants ha⁻¹, 1.1 m within and 0.9 m between rows. Each plot consists of six rows with seven plants and as such 20 central observation plants are available per plot.

EXPECTED RESULTS
The obtained data will show the value of the traits of the local accessions compared to the characteristics of the Colombian variety.

Traits regarding planting material and root production:
Number and average length of stems and stalks, weight of stalks produced per ha are estimates for the multiplication rate and determine specific planting machine dimensions. The vulnerability to occurring stress (water logging, drought, diseases, competition from weeds and other pests) are being assessed during the growing season. Storage roots and root system data determine harvesting machine capacity and power requirements.

Traits regarding processing:
The calculated relationship between measured dry matter content (oven dry method) and specific gravity (balance method) offers farmers and processors a handy tool to determine the value of the fresh root yield for flour production. It will prove the need for on-farm post harvest activities (slicing and drying). The composition of roots supports the potential use of the accessions as a feedstock for specific industrial processing purposes.

Sustainability data:
Operational and investment costs and benefits can be calculated or estimated for the production of roots and post harvest processing. The most beneficial growing season length for each accession and adaptability to different cultivation calendars can be evaluated. Promising local accessions for conventional and modern breeding purposes can be selected.

LITERATURE