



APPLICATIONS UNDER EXAMINATION

SWEET POTATO

SWEET POTATO (*Ipomoea batatas*)

Proposed denomination: 'VSP002'
Application number: 15-8737
Application date: 2015/10/23
Applicant: Board of Supervisors of Louisiana State University and Agricultural and Mechanical College, Baton Rouge, Louisiana, United States of America
Agent in Canada: Vineland Research and Innovation Centre, Vineland Station, Ontario
Breeder: Valerio Primomo, Toronto, Ontario
Don Labonte, Baton Rouge, Louisiana, United States of America

Variety used for comparison: 'Murasaki'

Summary: *The tip of the stem of 'VSP002' has medium density pubescence whereas the tip of the stem of 'Murasaki' has dense pubescence. The anthocyanin colouration of the petiole of 'VSP002' is of medium intensity whereas the anthocyanin colouration of the petiole of 'Murasaki' is absent or very weak. The upper side of the young leaf blade is yellow green for 'VSP002' whereas the upper side of the young leaf blade of 'Murasaki' is light green. The shape of the storage root of 'VSP002' is ovate whereas the shape of the storage root of 'Murasaki' is irregular. The flesh of the storage root of 'VSP002' is mainly medium yellow with a light beige secondary colour whereas the flesh of the storage root of 'Murasaki' is mainly medium beige with a yellow secondary colour.*

Description:

PLANT: spreading growth habit

STEM: long primary shoots, absent or weak intensity of anthocyanin colouration of tip, absent or weak intensity of anthocyanin colouration of node, medium density pubescence of tip

STEM INTERNODE: medium length, large diameter, absent or weak intensity of anthocyanin colouration

PETIOLE: medium intensity of anthocyanin colouration, long

YOUNG LEAF BLADE (UPPER SIDE): yellow green

LEAF BLADE: three lobes, shallow sinus between lobes

LEAF BLADE (UPPER SIDE): green excluding anthocyanin colouration, absent or weak intensity of anthocyanin colouration, absent or very small extent and very weak intensity of anthocyanin colouration on abaxial veins

STORAGE ROOT: ovate, medium length to width ratio, medium thick cortex relative to overall diameter, medium depth eyes

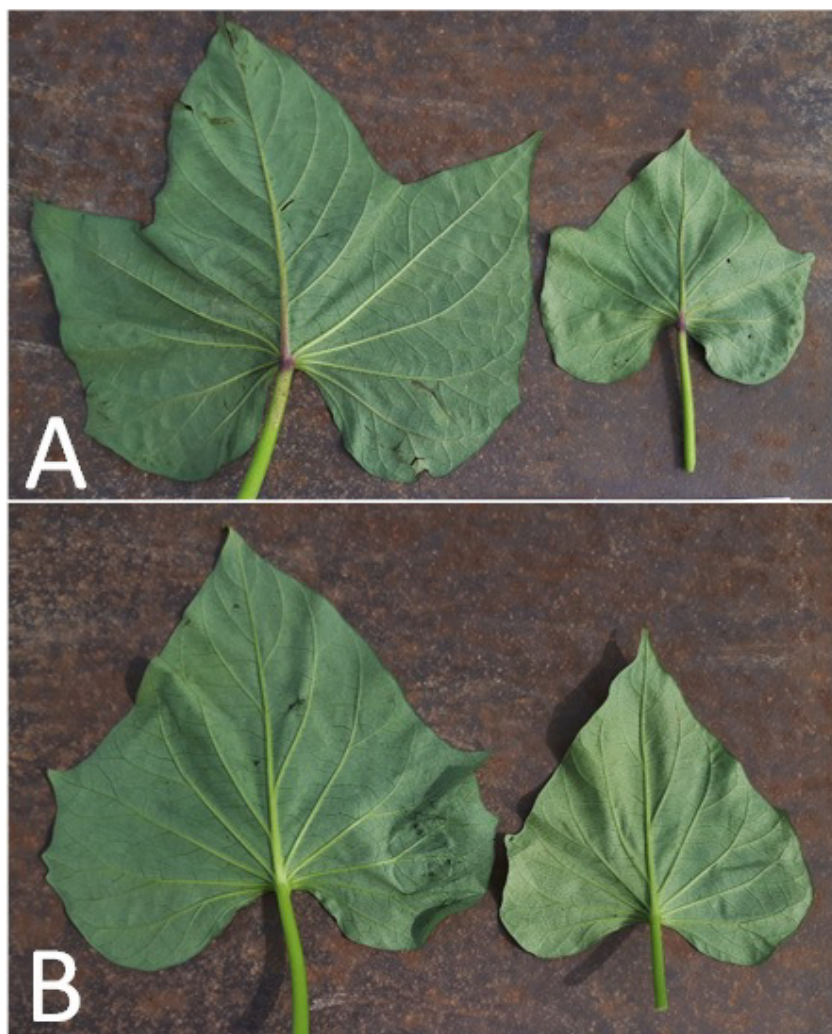
STORAGE ROOT SKIN: mainly light purple with white secondary colour

STORAGE ROOT FLESH: mainly medium yellow with light beige secondary colour

Origin and Breeding: 'VSP002' originated from a cross conducted by Don LaBonte in 2012, in Baton Rouge, Louisiana, USA, in an open-pollinated polycross nursery containing 12 lines. The cross from which 'VSP002' originated was between the selection designated 'LA07-190', as the female parent, and an unknown male parent. From the resulting progeny, approximately 250 seedlings were planted in a greenhouse in 2012 at the Vineland Research and Innovation Centre facilities in Vineland, Ontario. A cutting from each seedling was transplanted to the field and evaluated at harvest for flesh colour, and root shape and consistency. In 2012, 'VSP002' was selected by Valerio Primomo for its yellow flesh colour, purple skin colour, storage root shape and storage root shape consistency. 'VSP002' was further trialed at the Vineland Research and Innovation Centre in Vineland, Ontario in 2017.

Tests and Trials: The comparative trial for 'VSP002' was conducted as an outdoor trial during the summer of 2018 at the Vineland Research and Innovation Centre in Vineland, Ontario. The trial included 90 plants each of the candidate and reference variety. The plants were grown from un-rooted cuttings that were transplanted in hills on June 15, 2018. The hills

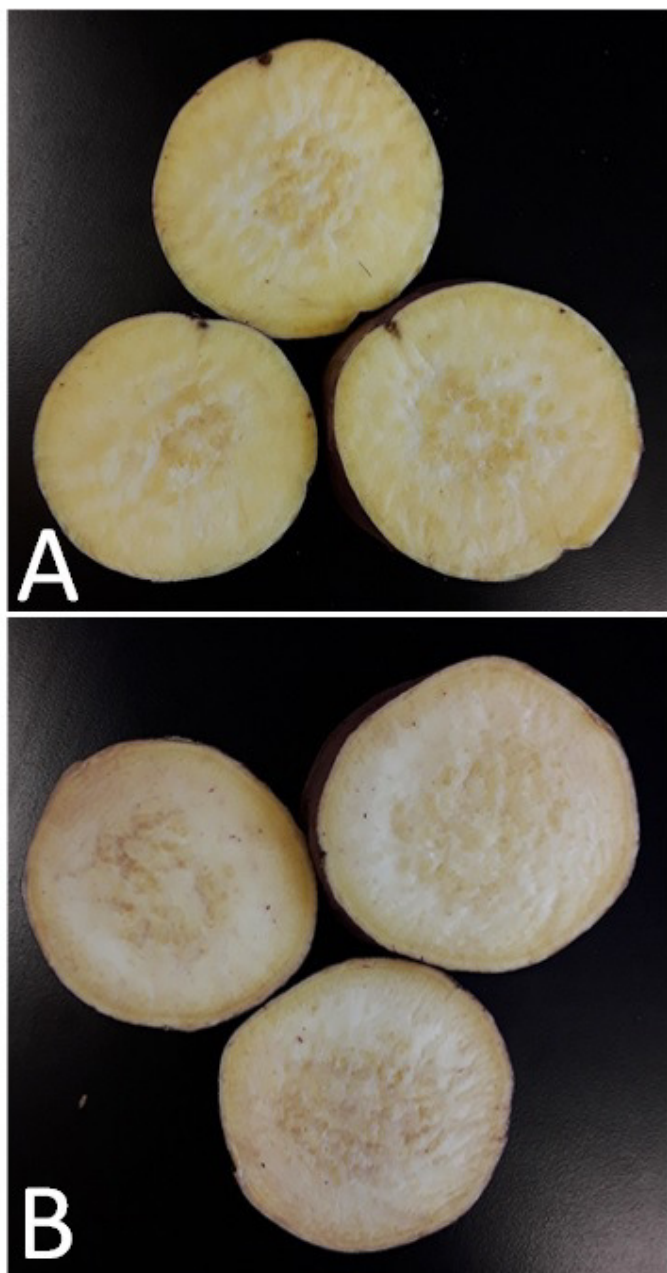
were 1.5 metres apart and spaced 12 cm within rows. On September 13, 2018, the observations and measurements on single plants were made on 30 plants and any other observations were made on all plants in the trial.



Sweet Potato: 'VSP002' (top) with reference variety 'Murasaki' (bottom)



Sweet Potato: 'VSP002' (top) with reference variety 'Murasaki' (bottom)



Sweet Potato: 'VSP002' (top) with reference variety 'Murasaki' (bottom)
