

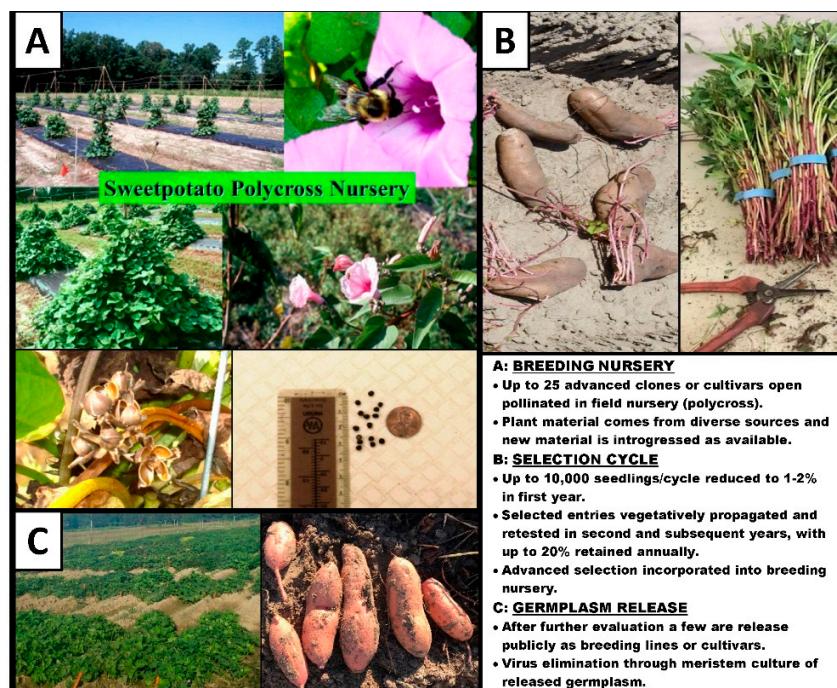
Large Scale Seedling Grow-out Experiments Do Not Support Seed Transmission of Sweet Potato Leaf Curl Virus in Sweetpotato

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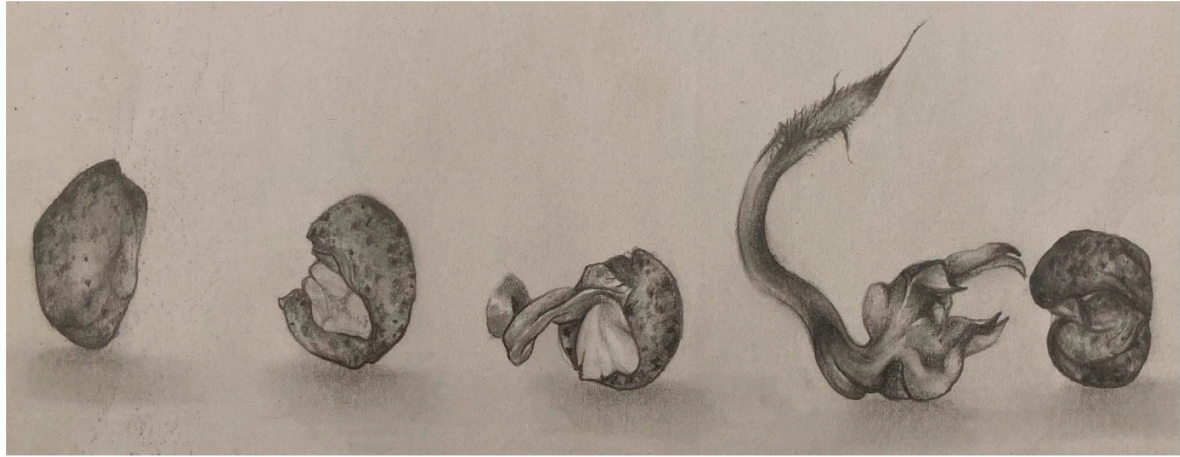
Supplementary files:

Supplementary Table S1. Primers used for sweet potato leaf curl virus (SPLCV) detection by real-time polymerase chain reaction (qPCR) or end-point PCR.

Primer Designation	Primer Name	Sequence 5'-3'	Reference
Real-time PCR for SPLCV (68 bp)			
KL07-40	SPLCV.F2	5'GAG ACA GCT ATC GTG CC	[17]
KL07-41	SPLCV.R2	5'GAA ACC GGG ACA TAG CTT CG	
KL07-42	SPLCV.P2	5'FAM-TAC ACT GGG AAT GCT GTC CCA ATT GCT-TAMRA	
Real-time PCR for 18S rRNA for an Internal Control			
KL13-53	18S rRNA 449 F	5' GTGACGGAGAATTAGGGTTCGA 3'	[45]
KL13-54	18S rRNA 498 R	5' CTGCCTTCCTTGATGTGGTA 3'	
KL13-55	18S rRNA 475 P	CY5-CCGGAGAGGGAGCCTGAGAAACGG-BHQ-2	
Conventional End Point PCR for SPLCV Coat Protein Gene			
KL09-14	SPLCV CP-F	5'-AAG AAA TAC GAG CCA GGA AC	This study
KL09-15	SPLCV CP-R1	5' TAT TAA TTA TTG TGC GAA TCA	



Supplementary Figure S1. Schematic of the current workflow in the USDA, ARS, U.S. Vegetable Laboratory Sweetpotato Breeding Program. The activities are recurring annually, with potential virus acquisition occurring during each cycle of selection. In the breeding nursery parental entries are open pollinated and seed is harvested for selection of improved germplasm. The selected germplasm is stored overwinter and planted in the spring for slip production. Slips are planted into replicated field plots and only a tiny fraction are ever released as breeding lines or cultivars.



Supplementary Figure S2. Botanical drawing of sweetpotato seed germination over seven-day period for seeds germinated on sterilized moistened filter paper in glass Petri dishes for testing the emerging young seedling and seed coat for sweet potato leaf curl virus (SPLCV). From left to right: seed imbibing, seed coat cracks with visible embryo, radicle emergence, and seedling with cotyledons dehiscence seed coat. The seedling and seed coat were then tested for SPLCV using real-time PCR.