ADDITIONAL INFORMATION

File 1: Cassava sample collection form used to collect and store samples.

CCLI – Genetics Module

Biol3300: Genetics Course
Department of Biology
University of Puerto Rico Mayaguez

FOR THE TEACHING ASSISTANT

Name of TA: _____
Email of TA: _____
Date Received: _____
Lab section#: 3300L-____ Sample#:____

FOR THE SIRITUNGA LAB
Official #:

CASSAVA SAMPLE COLLECTION FORM (Fall 2009)

PERSONAL INFORMATION

Your Name:_____ ID #:_____

Email: _____Telephone:_____

Major: _____Level: 1st year / 2nd year / 3rd year / 4th year / other

SAMPLE COLLECTION SITE INFORMATION (if available)

Name of land owner:_____ Telephone:_____

Barrio/Sector:_____ Municipality:_____

Coordinates (GPS)_____ Date of Collection:_____

Is this sample from a commercial farm (yes/no)?_____

Detailed directions to the site and Address: _____
_____
_____
_____

Mark the location of collection site clearly on the map in the reverse side.

SAMPLE INFORMATION:

Approx. height of the plant: _____ Approx. age of the plant:_____

Number of nodes in the plant:_____ Which node (from top) is the sample you collected:_____

What is the local name of this variety: _____

Did you place the sample is a zip lock bag immediately:_____ Did you place the sample at 4°C: _____

ADDITIONAL COMMENTS (disease, toxicity, tastes, long-lasting, where is this cassava from, other stories about this cassava etc):

ADDITIONAL INFORMATION

File 2: Modified DNA extraction protocol, based on Dellaporta *et al.* (1983), used in the genetics module.

Step	Protocol
1	Take a half piece of leaf, place in 1.5ml tube. Label the tube with sample #. Add a tip of sand and grind for no more than 3 minutes with a blue pestle.
2	Add 500 µl of buffer, grind furthermore for 1 minute.
3	Add 50 µl of SDS 20% and mix by inversion.
4	Incubate at 65°C for 8 minutes in a water bath.
5	Add 250µl of cold (-20°C) 5M of Potassium Acetate and mix by inversion.
6	Incubate at -20°C for 5 minutes.
7	Centrifuge at maxim speed (~13000rpm) for 3 minutes. Transfer the supernatant to new tube. Label the tube with sample #.
8	Add 500 µl cold isopropanol to the supernatant and mix gently by inversion.
9	Incubate the samples for 5 min at -20°C.
10	Centrifuge 3 min in maxim (~13,000rpm). Discard supernatant.
11	Leave the pellet drying for 5 minutes at room temperature.
12	Add 700µl of 70% Ethanol to the pellet and mix gently.
13	Centrifuge 3 minutes max speed (~13,000rpm). Discard the supernatant.
14	Leave the pellet drying for 5 min.
15	Add 150 µl TE (10:1) and 2.25 µl of RNAase to the pellet.
16	Incubate for 5 min at 65°C in a water bath.
17	Re-label the tube with sample name and place the tube with DNA at 4°C.

ADDITIONAL INFORMATION

File 3: Gains in content knowledge during pilot implementation of the genetics module. Assessment of knowledge gained by students was measured through pre- and post-module assesments in a pilot section (n=22) and a control section (n=22). Both sections were taught by the same teaching assistant. Percentage correct per questions in the pre-module (gray columns) and post-module (black columns) assessment are shown. The last horizontal bars show the overall percentages. The overall scores in the post test were higher (*p<0.01), as determined using an unpaired *t* test, in the pilot section compared to the control section. GCQ refers to 'Genetics Content Question'.