



# Cassava Seed Tracker™

[www.seedtracker.org/cassava](http://www.seedtracker.org/cassava)

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## BASICS

BUILDING AN ECONOMICALLY  
SUSTAINABLE, INTEGRATED  
CASSAVA SEED SYSTEM



# Outline

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- **Recap – Nigerian seed regulations & standards**
- **CST overview and introduction to key features**
- **Next steps**
- **Demo (post-meeting activity)**

# Commercial seed production

Company registration

Seed production field registration

Inspection and approval

## Prerequisite

- **Seed company registration Corporate Affairs Commission, including type of seed to be produced (Basic or certified).**
- **Separate registration (trade name) required for each class of seed**
- **Breeder seed remains the responsibility of NARS with crop mandate (e.g. NRCRI) and other organizations recognized by NASC (e.g. IITA)**

CAC

## Seed production [Basic and Certified]

- **Pre-planting: Selection of (approved) variety, Field, Source seed and Registration with NASC [1<sup>st</sup> inspection]**
- **Planting and field management: Spacing, Varietal purity, Incidence of “notified” pest and diseases, weediness [2<sup>nd</sup> inspection]**
- **Harvesting: Incidence of notified pest and diseases, Stem quality, Stem quantity, Labelling [3<sup>rd</sup> inspection]**

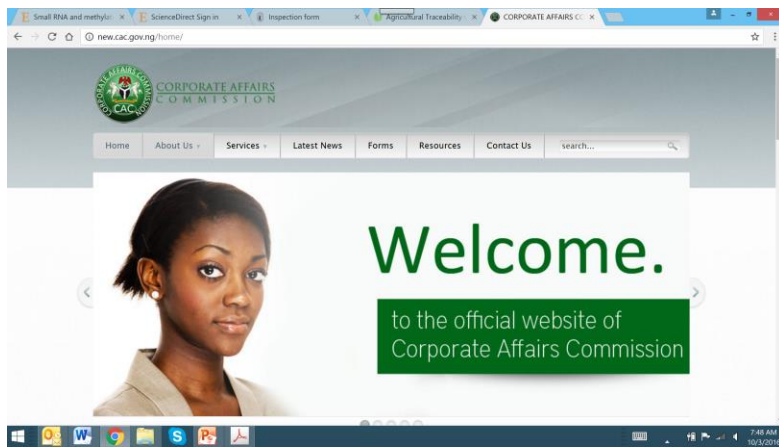
NASC

# Registration

Information resource

Step-by-step directions

On-line application forms

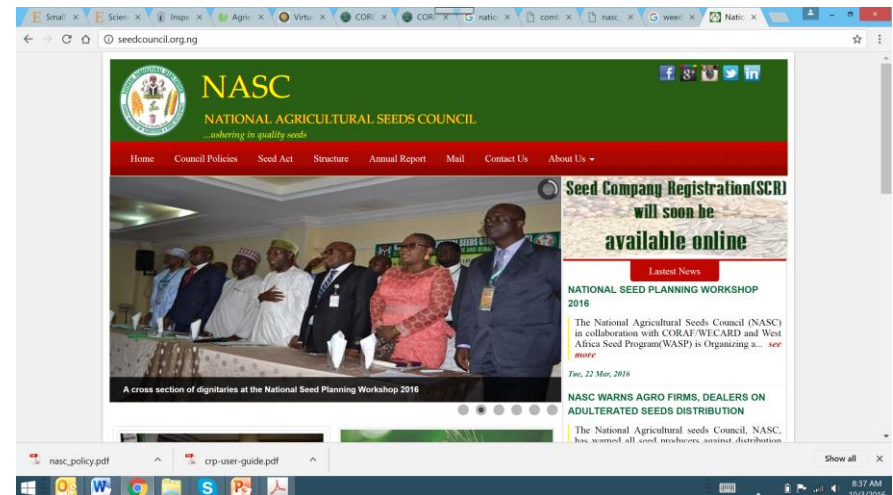


<http://new.cac.gov.ng/home/>  
**Corporate Affairs Commission -  
Company Registration Portal**

<http://seedcouncil.org.ng/>

**Seed company registration also  
through NASC web portal also.**

**Seed field registration**

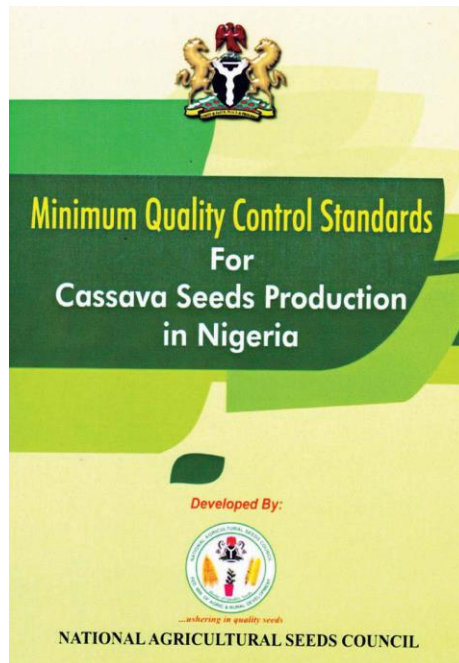


# Guidelines for registered seed production

Information resource

Step-by-step directions

Quality thresholds



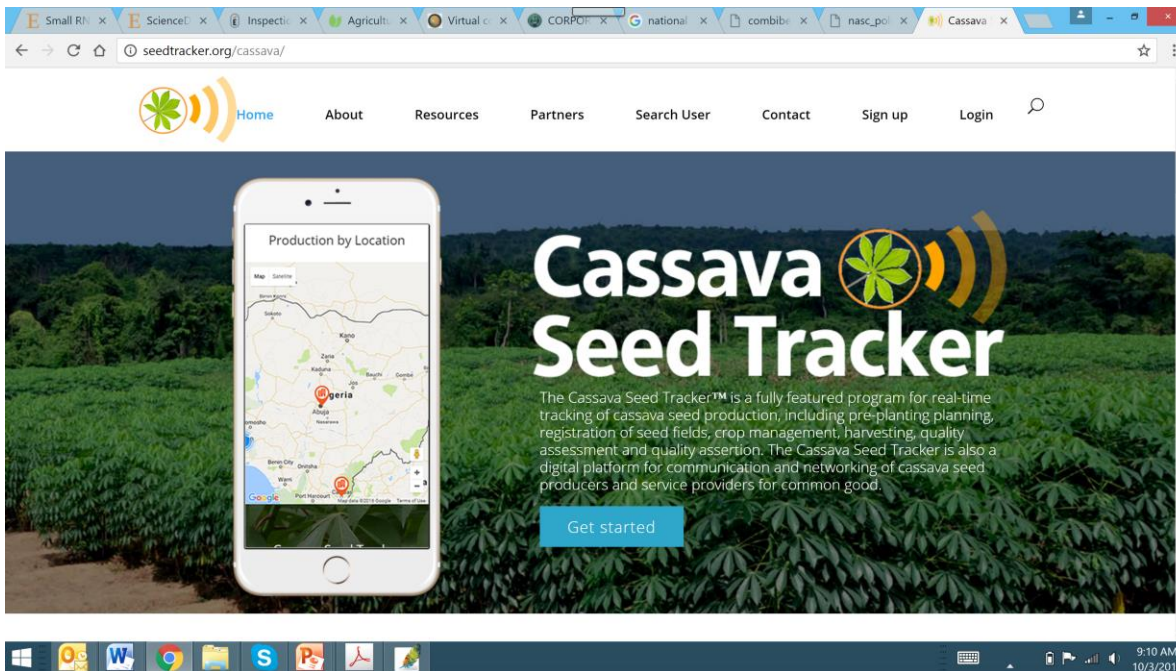
Parameter	Basic seed	Certified
Off type	10%	20%
*CMD (mosaic)	10%	20%
*CAD (Anthracnose)	10%	20%
*CBB (bacterial blight)	10%	20%
Scale insects	0%	20%
CM (mealybug)	10%	20%
CGM (green mite)	10%	20%

\*CBB, CMD, CGM only plants with severity  $\geq 3$  are scored

- Minimum isolation distance 5 m
- At least 7 months old
- Stem girth of ~1.5 to 2.5 cm
- About 1 m stems; 50 stems per bundle
- Ratooning or regeneration
  - 2x for Basic seed
  - 3x for certified seed

# Cassava seed tracker

## Integrated seed resource management software



- **Secure**
- **Secure data**
- **Personalized data**

**Producers**

**Researchers**

**Traders**

**Regulators**

**Extension specialists**

**Logistics/input dealers**

**Inventory of costs / seed stock**

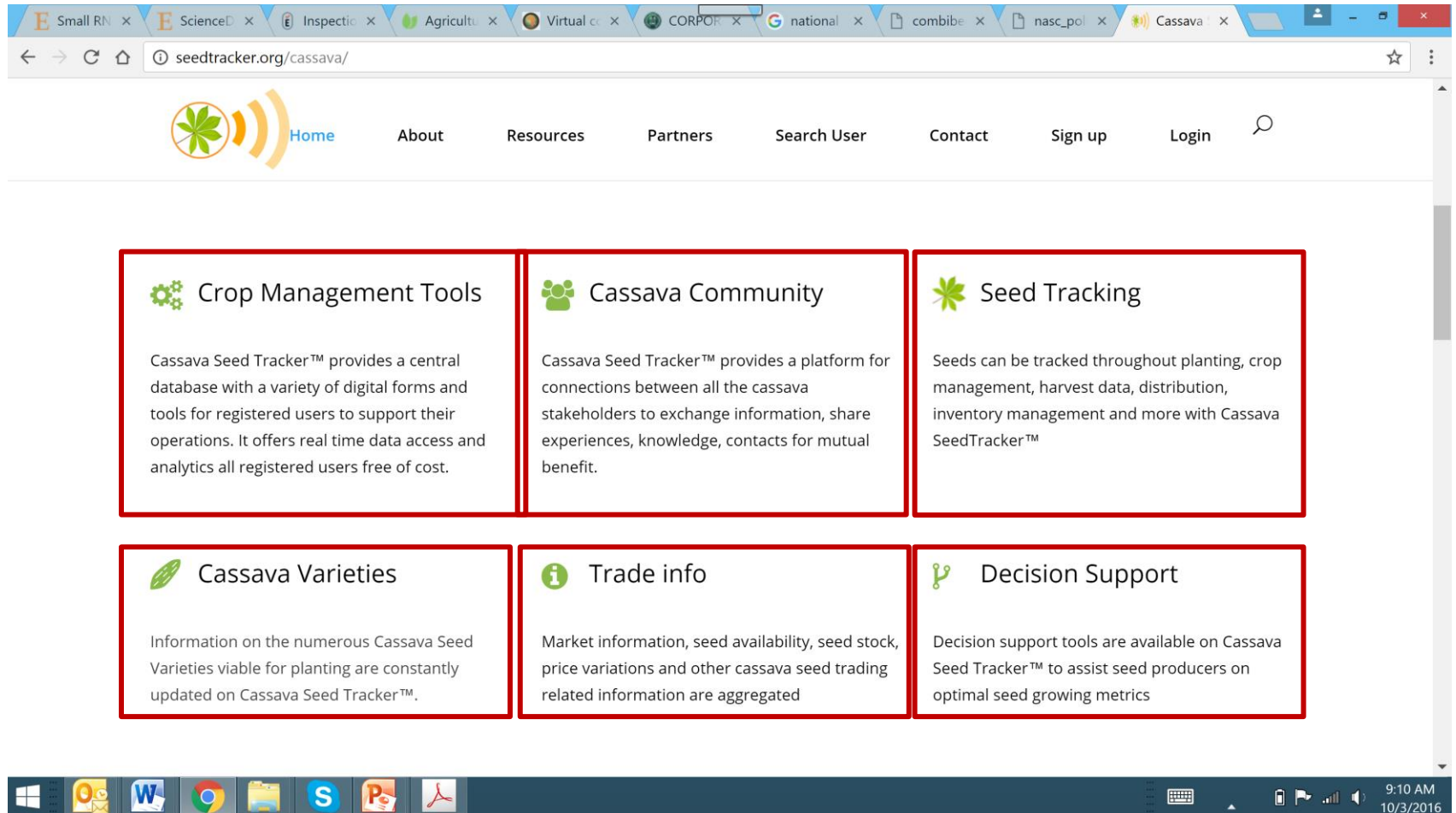
**Registration (on-line forms)**

**Tool set (weather, cost estimation, crop management decision support, etc.)**

**Flexible platform to tailorable to user needs, other crops and countries**

# Cassava seed tracker

## Variety of features



The screenshot displays the Cassava Seed Tracker website interface. The browser address bar shows the URL [seedtracker.org/cassava/](http://seedtracker.org/cassava/). The navigation menu includes links for Home, About, Resources, Partners, Search User, Contact, Sign up, and Login. The main content area is divided into six feature boxes, each with an icon and a brief description:

- Crop Management Tools**: Cassava Seed Tracker™ provides a central database with a variety of digital forms and tools for registered users to support their operations. It offers real time data access and analytics all registered users free of cost.
- Cassava Community**: Cassava Seed Tracker™ provides a platform for connections between all the cassava stakeholders to exchange information, share experiences, knowledge, contacts for mutual benefit.
- Seed Tracking**: Seeds can be tracked throughout planting, crop management, harvest data, distribution, inventory management and more with Cassava SeedTracker™
- Cassava Varieties**: Information on the numerous Cassava Seed Varieties viable for planting are constantly updated on Cassava Seed Tracker™.
- Trade info**: Market information, seed availability, seed stock, price variations and other cassava seed trading related information are aggregated
- Decision Support**: Decision support tools are available on Cassava Seed Tracker™ to assist seed producers on optimal seed growing metrics

The Windows taskbar at the bottom shows the time as 9:10 AM on 10/3/2016.

# Cassava seed tracker

## Interactive map

The screenshot displays the Cassava seed tracker website interface. At the top, there is a navigation bar with the following links: Home, About, Resources, Partners, Search User, Contact, Sign up, and Login. The main heading is "User Categories by Location". Below this, there are three checked checkboxes for "User Types": Trader (Buying & Selling), Regulator, and Extensionist. The map shows West Africa with a red location pin in Nigeria. A popup window provides the following information:

- Name: Lydia Ogunya
- User type: Extensionist, Regulator, Trader (Buying & Selling)
- Click [here](#) to see Lydia's profile.
- Send Lydia a mail: [akanbilydia@gmail.com](mailto:akanbilydia@gmail.com)

The map also shows other countries like Burkina Faso, Ghana, Togo, Benin, and Cameroon, along with various cities and roads. The Windows taskbar at the bottom shows the date and time as 9:17 AM on 10/3/2016.



# Cassava seed tracker

## Input forms – Dash board

The dashboard provides an overview of the tracking system. It includes a navigation menu with options like Overview, Map, Table, Charts, Dashboard, and Settings. The main content area is divided into several sections:

- Activity:** A summary section with three cards showing 0 Records, 0 Last Submission, and 0 Contributors.
- Submissions:** A section indicating "No Activity".
- Description:** A section with the text "NO DESCRIPTION".
- Export data:** A section for exporting data in CSV format, with a "Prepare csv export" button and a link to "Show advanced export options".
- XLS Reports:** A section indicating "NO XLS REPORTS".
- Submit data:** A section for submitting new data.
- Linked Filtered Datasets:** A section for managing linked datasets.

This interface allows users to manage their forms. It features a header with "Cassava forms" and a search bar. Below the header, there is a list of forms with columns for form name, status, type, and date. The forms listed are:

Form Name	Status	Type	Date	Records
Seed production, planting and registration	0	Webform	Oct 03, 2016	(no records)
Planting and management	0	Webform	Oct 03, 2016	(no records)
Weeding	0	Webform	Oct 03, 2016	(no records)
Harvesting	0	Webform	Oct 03, 2016	(no records)
Inspection form	0	Webform	Aug 28, 2016	(no records)

The "Inspection form" screen is designed for data entry. It features the Cassava Seed Tracker logo at the top. Below the logo, there is a section titled "SECTION III. Identification and verification" with the instruction "GET THE COORDINATES FOR THE LATITUDES AND LONGITUDES". A text input field for "latitude (x,y)" is visible.

The "Seed production, planting and registration" screen is designed for data entry. It features the Cassava Seed Tracker logo at the top. Below the logo, there is a section titled "Section I. Production site passport information" with the instruction "YOU ARE BEGINNING FILLING FOR A NEW SEED FIELD."

# Cassava seed tracker

<https://ona.io/iitayamseedtracking/21255>

## Input forms – Dash board

- **Pre-planting information**
  - Information communication to regulators
  - Regulators review information and feedback
  - Registration fee payment
- **Planting**
  - Spacing and crop management details
  - Post-planting inspection (2<sup>nd</sup> inspection)
  - Check list and quantitative data for quality thresholds
- **Harvesting**
  - Check list and quantitative data for quality thresholds
  - Barcoding (QR Code)
- **Traceability (QR Code)**
  - Field registration to post harvest tracking



## Next steps

- **CST user registration**
- **Training in using data entry forms**
- **Populating CST site with information and tools**
- **Single signing on QR coding**
- **Bug fixing**
- **Scoping for server set-up in NASC**
- **Training NASC**
- **Integration into NASC website**
- **Full launch in the BASICS 2<sup>nd</sup> annual meeting - 2017**

# Cassava Seed Tracker™

## Acknowledgments

[www.seedtracker.org/cassava](http://www.seedtracker.org/cassava)



BILL & MELINDA  
GATES *foundation*



Research  
Program on  
Roots, Tubers  
and Bananas

## Thanks for Your Attention



## BASICS

BUILDING AN ECONOMICALLY  
SUSTAINABLE, INTEGRATED  
CASSAVA SEED SYSTEM

The purpose the BASICS project is to develop a sustainable cassava seed value chain in Nigeria, characterized by the commercial production and dissemination of cassava planting material. The project envisages benefits to farmers and the industry through higher returns from the use of clean planting material of superior stem quality that are made accessible to farmers at the right time and at an appropriate price.