THE RESULTS OF CMD SCREENING IN VIETNAM BY HARC, RCRDC & CIAT

Objectives of the activity

➢ **Screening cassava clones to identify potential CMD resistant clones**

Materials

39 clones from CIAT

89 groups from the survey project in 2015

6 clones from RCRDC

7 clones from HARC

Experimental design

Planting time: October 5th, 2018

Planting distance:

80 x 100 cm; 12.500 plants/ ha.

Fertilizer applied:
400 kg NPK (17-7-7-TE)

Location: Tan Hoi – Tan Chau-
Tay Ninh

No control *Bemisia tabaci*

Data collection methods

1. Count how many plants survived at

- ➤ **6 weeks**
- ➤ **3 months**
- ➤ **6 months**
- ➤ **8 months**
- ➤ **10 months**

Data collection methods

The counting to classify into 5 groups

Score 1   Score 2   Score 3   Score 4   Score 5

Data collection methods

Score 1: Apparently no visible symptom.

Score 2: Mild chlorotic patterns and slight distortion of the base of leaves.

Score 3: Mosaic patterns on all leaves, leaf distortion.

Score 4: Mosaic patterns on all leaves, leaf distortion and general reduction in leaf size.

Score 5: Misshapen and twisted leaves and stunting of the whole plant.

Results and Discussion

Clones were not sprouting at 6 weeks or died all at harvest

- 16 clones were not sprouting at 6 weeks.
- 40 clones have 1 to 9 plants survived until harvest.
- 56 clones have 10 to 30 plants survived until harvest.
- 19 clones have 31 to 50 plants survived until harvest.
- 8 clones have 51 to 68 plants survived until harvest
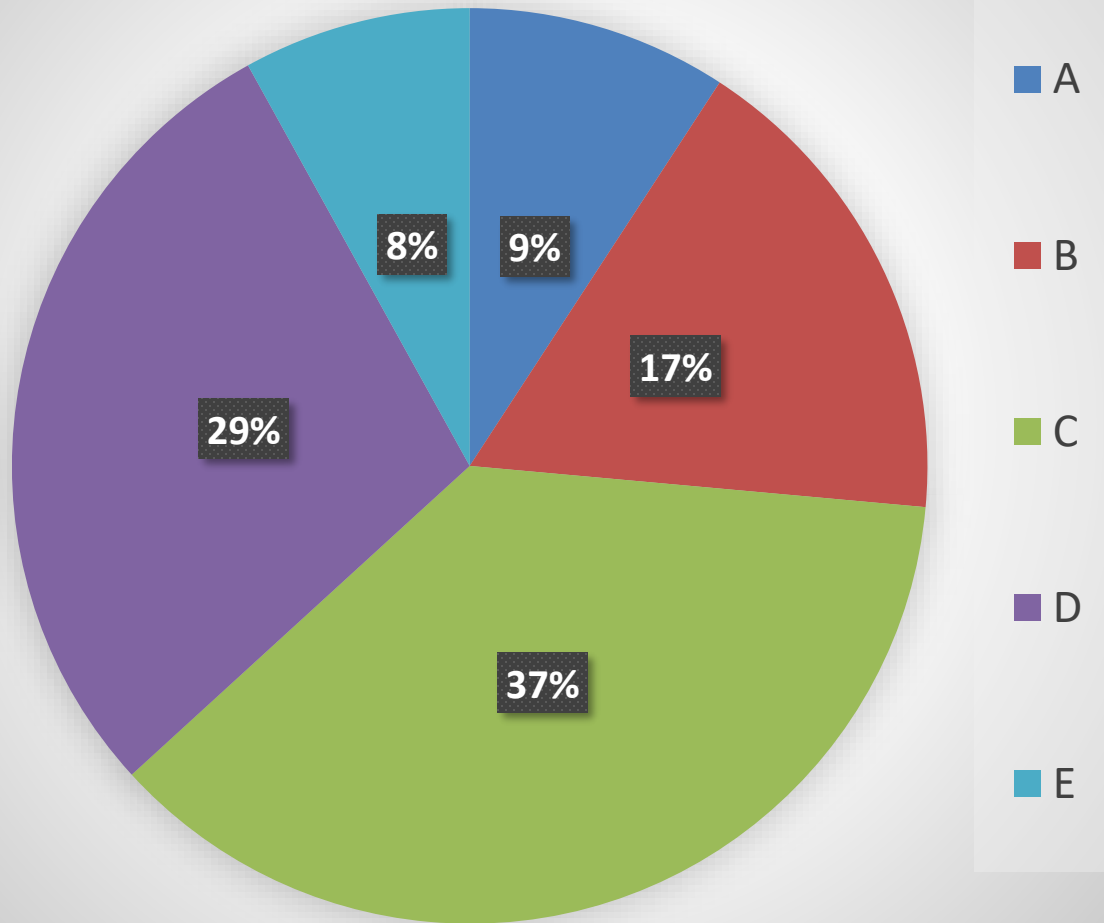
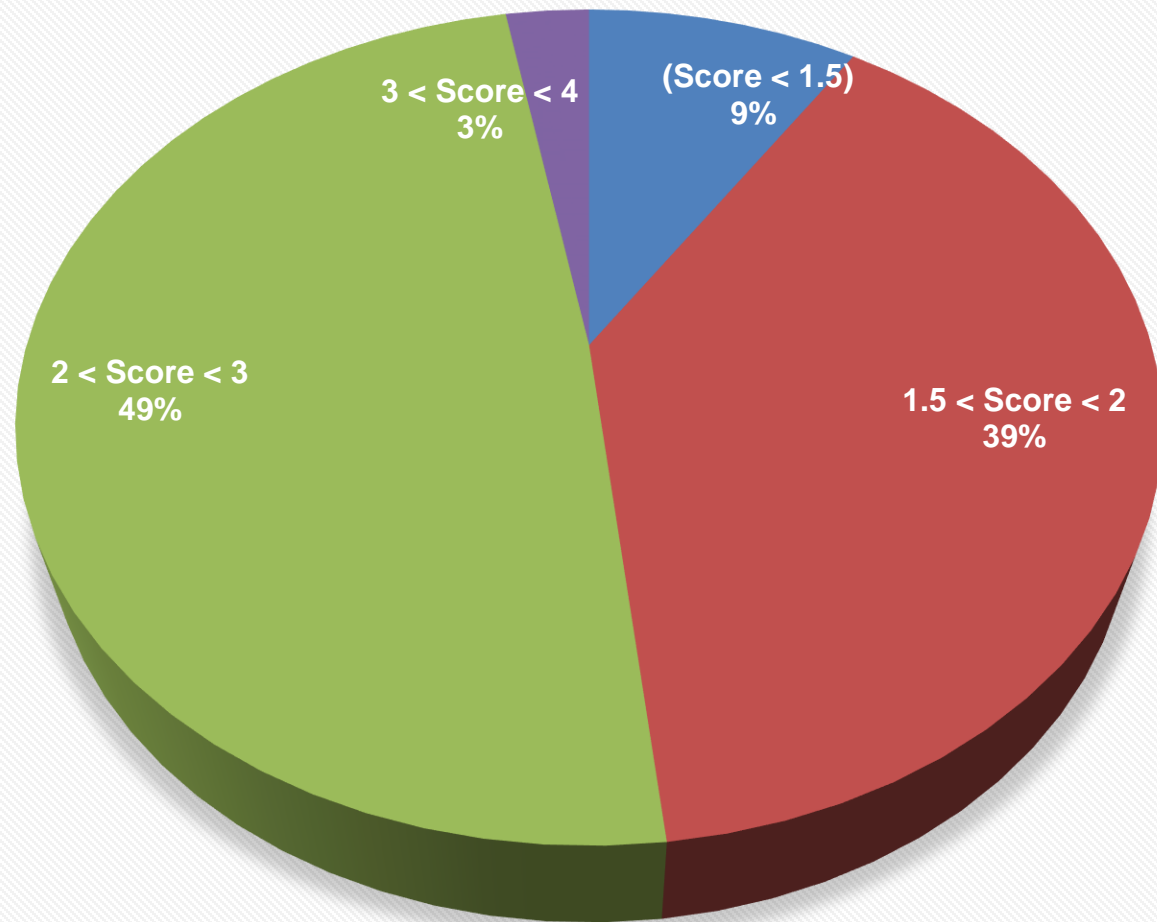# Classification and Screening on the Basis of root Yield

A > 5kg

4 < B < 5kg

3 < C < 4kg

2 < D < 3 kg

E < 2 kg

- A
- B
- C
- D
- E

8% 9% 17% 29% 37%

Classification of CMD infection

- (Score < 1.5) — 9%
- 1.5 < Score < 2 — 39%
- 2 < Score < 3 — 49%
- 3 < Score < 4 — 3%

Legend: ■ (Score < 1.5) ■ 1.5 < Score < 2 ■ 2 < Score < 3 ■ 3 < Score < 4

Yield and CMD score

Legend: Yield, 6 week, 3 month, 6 month, 8 month, 10 month

Categories: GROUP 30, GROUP 44, GROUP 51, GROUP 53, GROUP 115, GROUP 116, GROUP 279
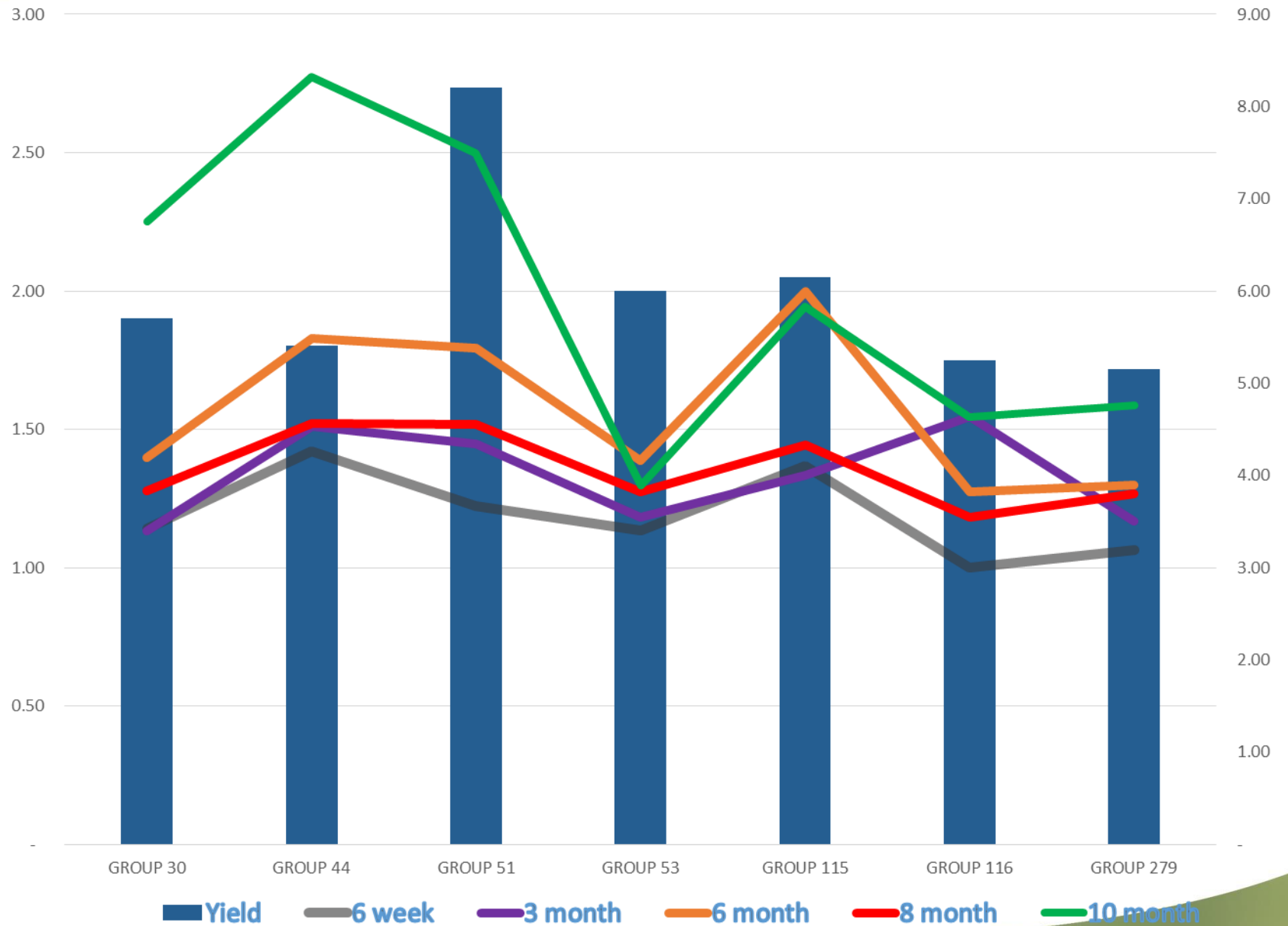
Table 1: Some groups have high yield compared to the popular varieties in Tay Ninh

Group	Origin	Kg/plant	Starch content	10 month Mean CMD score	Whole life span Mean CMD score
GROUP 30	Gia Lai & Binh Phuoc	5.70	15.9	2.3	1.44
GROUP 44	Hue & Quang Tri	5.41		2.8	1.79
GROUP 51	Son La	8.20		2.5	1.70
GROUP 53	Thanh Hoa	6.00	18.0	1.3	1.25
GROUP 115	Phu Tho	6.15		1.9	1.62
GROUP 116	Quang Binh	5.25	22.0	1.5	1.31
GROUP 279	Dien Bien	5.15	14.4	1.6	1.27
KM419 (control)		2.96	21.3	3.1	2.80
KM140 (control)		3.26	19.5	3.7	2.50
KU50 (control)		4.67	19.5	2.3	1.60

Mean CMD score: 1.44

2741 N30

5.7 kg/plant
Mean CMD score: 1.44

2741 N30

Mean CMD score: 1.25

Group 53: 442

6.0 kg/plant

32kg /plant

Thank you for your attentions