



**SPHI Seed System Community of Practice  
Summary of Discussion Topic**

**Title: Topic 10(b): How to determine the multiplication rate of sweetpotato?**

**1. Summary of participation statistics**

Table 1 shows the summary of participation statistics under this topic.

Duration	Lead discussant; institution & country	No. of contributions	No. of unique respondents	No. & type of institutions	No. of countries
14 days 29 <sup>th</sup> Mar-11 <sup>th</sup> Apr 2016	Jude Njoku – NRCRI, Nigeria	8	7(4 Male, 3 Female)	NARI (4), CIP (2), ARI (1)	7

**2. Introduction**

The topic “How to determine multiplication rate of sweetpotato” was proposed at a CoP meeting, and intended to solve the persistent problem of insufficient planting materials at time of planting. The multiplication rate determines the time needed to obtain a specified amount as well as the quality of planting materials. The multiplication rate is related to the multiplication. In determining the multiplication ratio, various issues come to mind: the effects of vigor indices on the ratio, vine length and number of nodes. While for the multiplication rate, questions such as nutrient combination needed to enhance growth in readiness for pruning; plant vigor, age of the sweetpotato at pruning and the physiological state of the planting material. The experience of members on these issues was expected to shade more light on how to determine the multiplication rate. The topic ran for 14 days and attracted 8 contributions from 7 unique respondents. Jude Njoku from NRCRI in Nigeria was the lead discussant. This summary highlights the key points, any areas of consensus or disagreement, and any ideas suggested members could consider to try/test in their work to further learning and inform development /practice in sweetpotato seed system.

**3. Key points and areas of consensus/disagreement.**

Though the discussion did not establish exactly how to determine multiplication rate, several factors that should be considered were specified and some consensus reached on nearly all of the key factors. The following are key areas of consensus among the contributors:

- Varietal differences have a role on vine length and multiplication ratio, since the number of nodes per 20 cm cutting for example would differ between varieties. Some varieties have wide intermodal spaces. The length of the vine should be of sufficient length to accommodate at least 3-4 nodes
- A vine length of 20-30 cm is considered a good standard length.
- Beside variety, other factors that determine multiplication rate include: altitude (which influences temperature), the type of multiplication (rapid or conventional multiplication), fertilizer is important in promoting growth of vines (a balance fertilizer e.g. 20:10:10 of NPK/ or a nutrient combination high in nitrogen, folia sprays all boosts foliage growth; others combine DAP and Urea each at 100gm /m<sup>2</sup>; manure at 2.5kg/m<sup>2</sup>)).

**4. Status on suggested follow up actions on emerged ideas or techniques (to updated at CoP meeting)**

No ideas for further actions emerged from the discussion.

Table 2: status of suggested follow up actions on ideas or techniques

Suggested idea for action	Follow up action taken	Where (country) & institution	Feedback to CoP