

Mother Baby Trial approach

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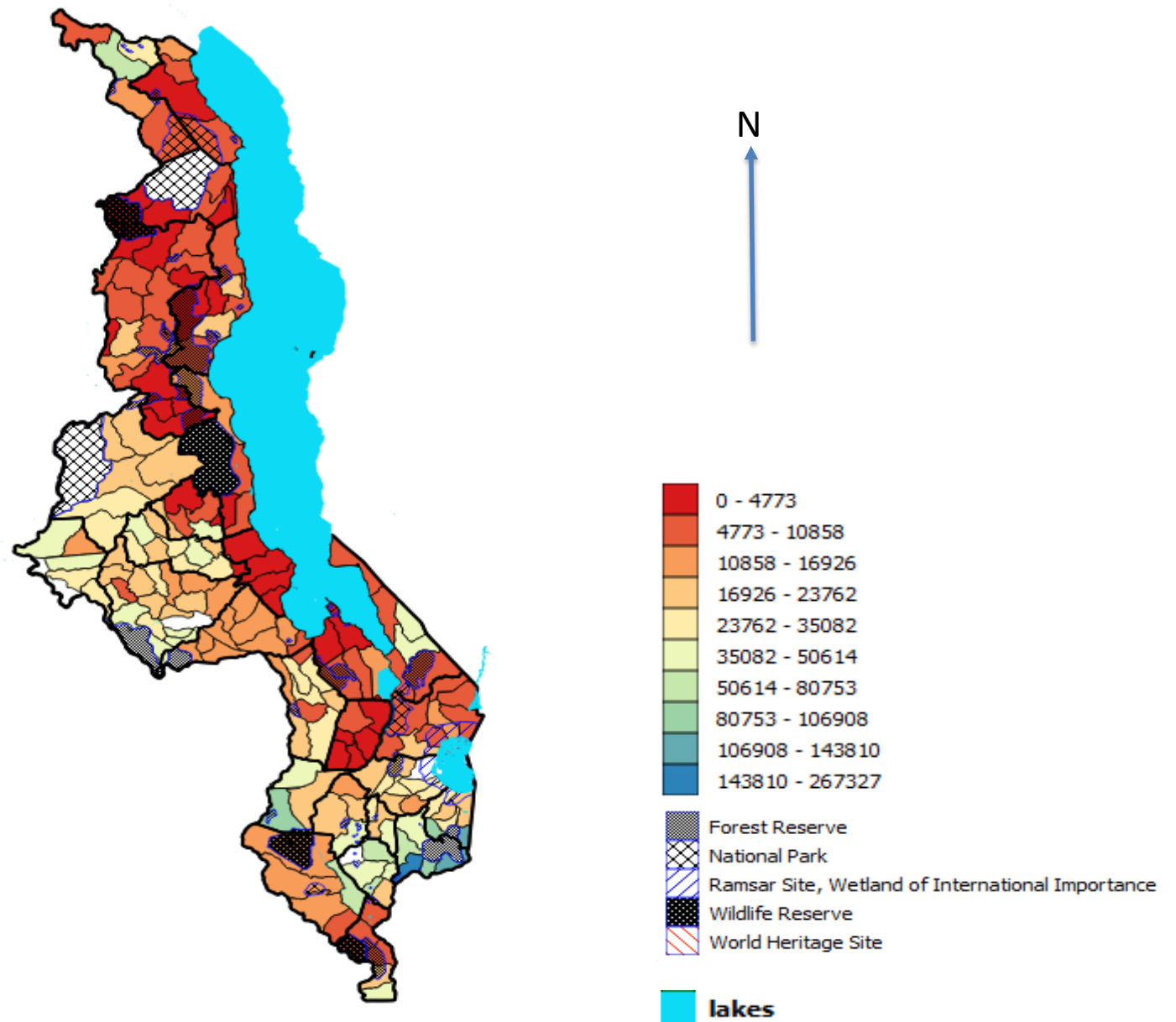
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RWANDA

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What we Know about Sweetpotato in Malawi

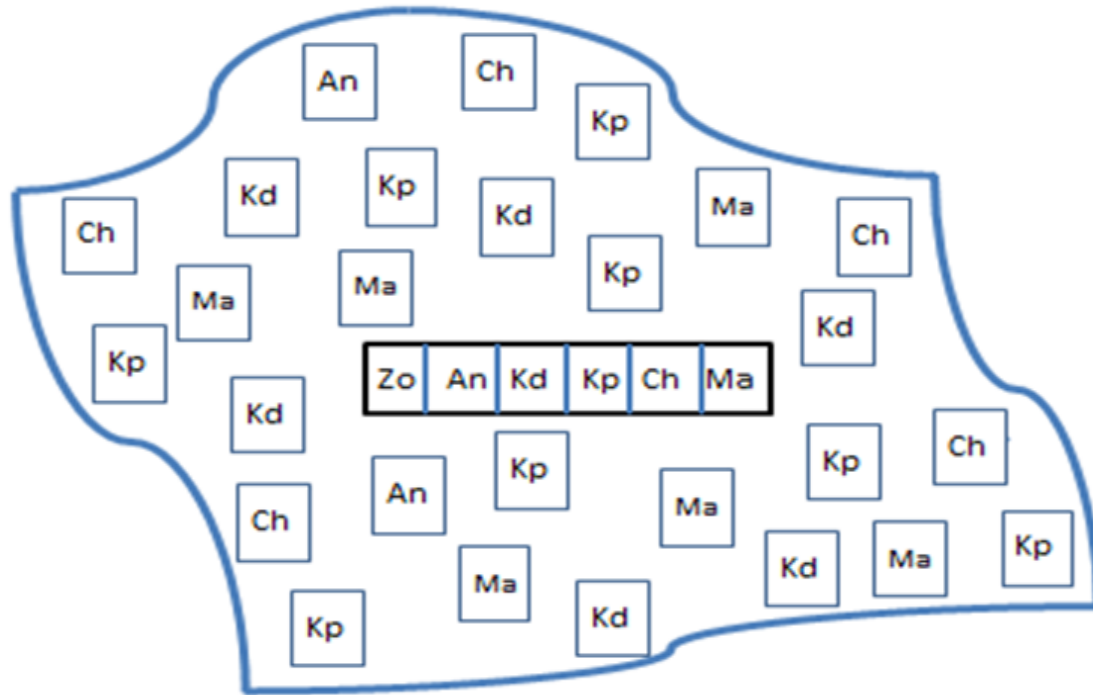


Data source: APES 2014/15

Varieties

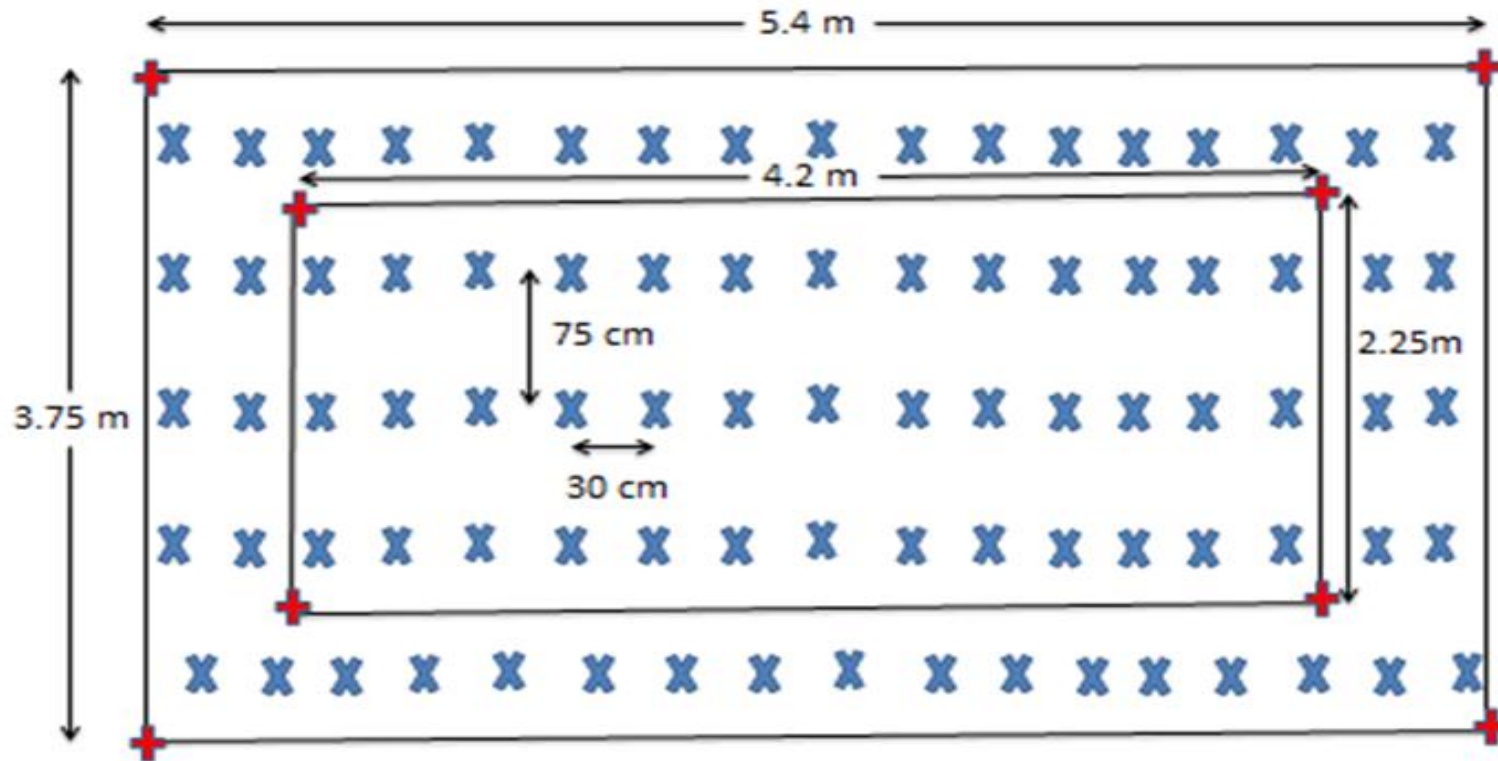


Mother Baby trial approach



- This is a simple design developed in the late 1990's in Malawi by Sieg Gassman of ICRISAT
- One central, farmer-hosted, location that has all 6 varieties: ***Mother plot***
- Surrounded by many farmer hosted satellite fields that have only one treatment (variety): ***Baby plots***
- Mother plot managed jointly by research/NGO, extension and farmers to ensure uniformity amongst treatments allowing for visual comparison and the collection of quantitative data
- The babies are managed by interested farmers in the same location, clustered around the mother plot
- The focus is on farmer qualitative rating of the new variety compared to current variety or varieties

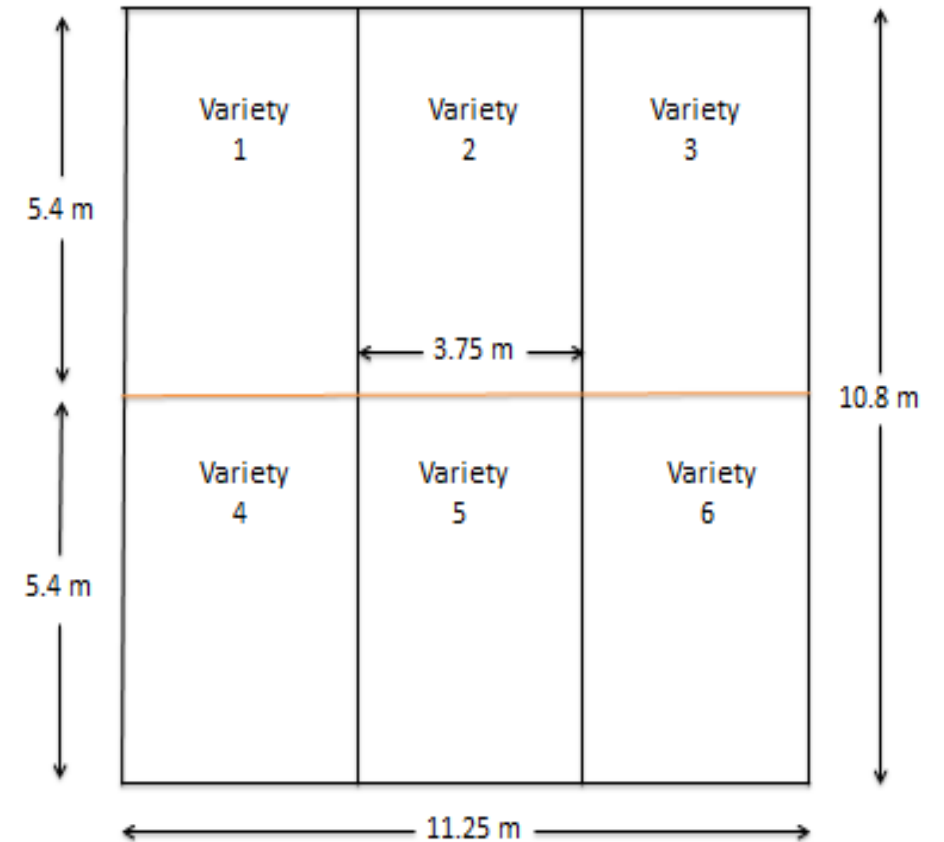
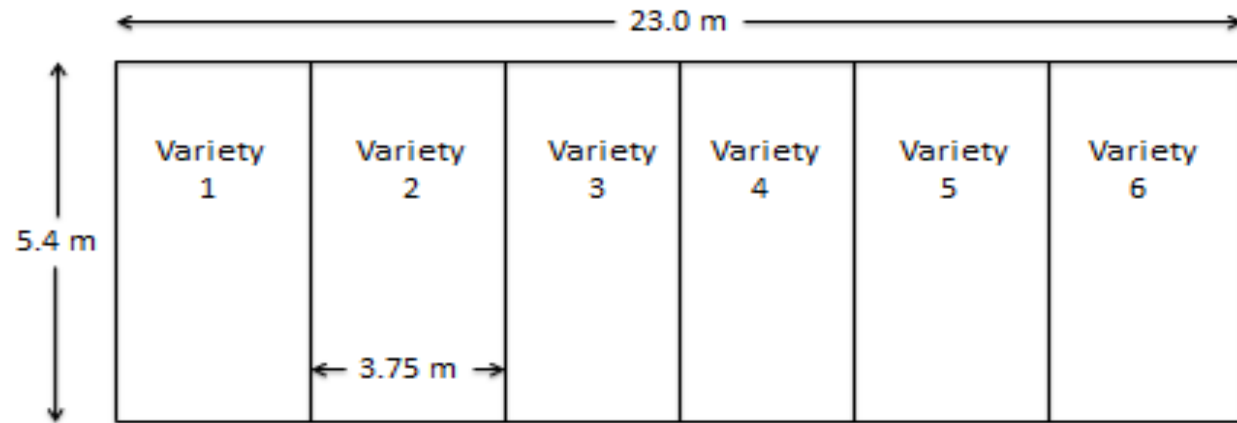
Plot Design



Data

- Site information
- Vine establishment
- Harvest data
- Disease scoring

Mother plot layout



Yield Calculation

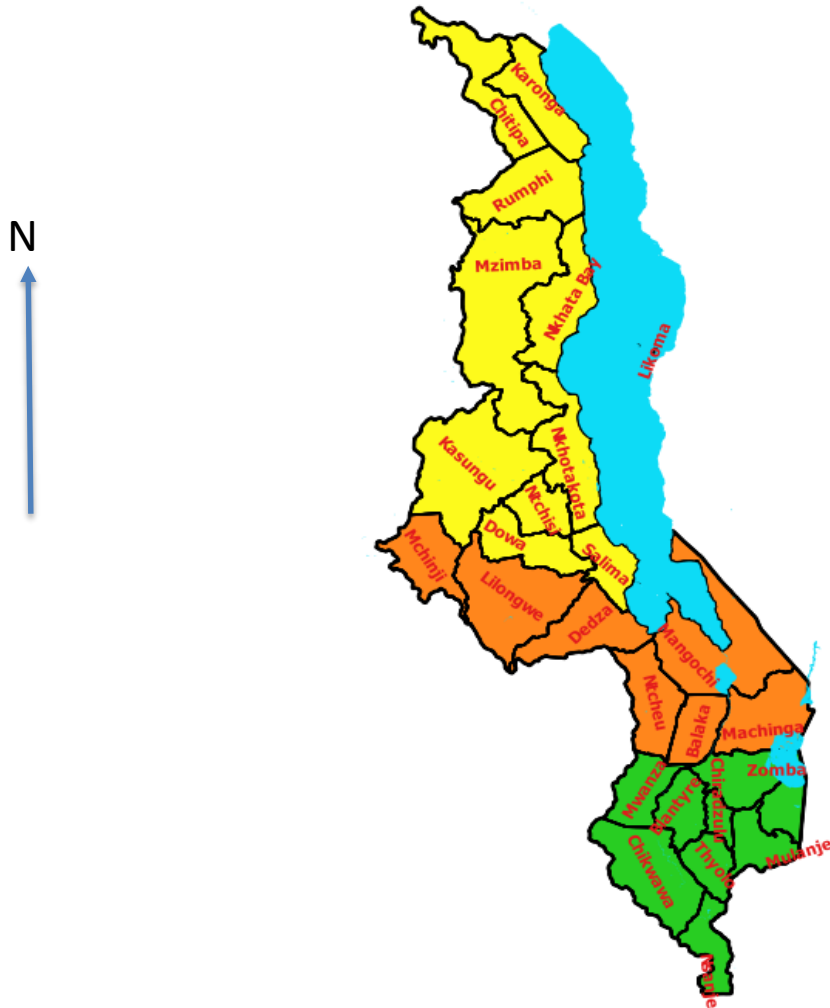
$$Yield(MTha) = \frac{Weight\ of\ roots\ (net\ plot) / 1000\ kgs}{Area\ of\ net\ plot\ (sq\ m) / 10000\ (sq\ m)}$$

e.g. If net plot weight of 1 variety in Motherplot is 15kgs; we can estimate the yield of that variety given that net plot area is 9.45 sq metres. (4.2m x 2.25m)

$$yield = \frac{15/1000}{9.45/10000} = \frac{0.015}{0.000945}$$

$$yield = 15.9\ Mt/ha$$

Coverage: No District Left Out



- Southern Region
 - Root & Tuber Crop Action
 - Irish Aid
- Central Region
 - Feed the Future Malawi Improved Seed Systems & Technology (VISTA)
 - USAID Feed the Future
- Northern Region
 - Scaling Up Orange fleshed Sweetpotato through Agriculture and Nutrition
 - UKAID

Lessons learnt

- Performance of Mother plots and baby plots vary
- Varieties perform differently in different agro ecological zones
- Farmer preferences for varieties are different
 - Taste
 - Yield
 - Disease tolerance
 - Shape
 - Market signals
 - Vine vigor
- Partners adopting the MBT approach for OFSP

Thank You

