## Post-harvest loss reduction in Nigeria

Results from alternative product packaging in the tomato value chains, 2nd measurement (July 2018), Southern region
11 October 2018, IITA Ibadan Nigeria
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## Plenary reflection on experiment



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## Research approach \& methodology




## Results -1

- Of the total Grade A product that enters the VC more Grade A remains when using crates

Baskets: 73\%
Crates: 98\%

- Difference in weight loss from farmer to retailer between baskets and crates

Baskets: 7\% loss
Crates: 2\% loss

## Results - 1 (Comparison)

## July 2018

- More Grade A remains when using c es

Baskets: 73\%
Crates: 98\%

- Difference in weight loss Baskets: 7\% loss Crates: 2\% loss


## December 2017

- More Grade A remains when using crates

Baskets: 65\%
Crates: 85\%

- Difference in weight loss Baskets: 11\% loss
Crates: 5\% loss



## Results - 3

| Percentage of the different grades filled in the baskets and crates at farm level |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | vc1 | vc2 | vc3 | vC4 | vc5 |  |
| Grade A | $90 \%$ | $88 \%$ | $74 \%$ | $58 \%$ | $90 \%$ |  |
| Grade B | $6 \%$ | $10 \%$ | $25 \%$ | $26 \%$ | $7 \%$ |  |
| Grade C | $4 \%$ | $2 \%$ | $2 \%$ | $16 \%$ | $2 \%$ |  |
| Total weight | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |  |

- Differences between value chain
- Differences at farm level already in quality
- It seems that the quality of tomatoes at farm level influence the loss within the rest of the chain
- What can be the reason for this?
- Enumerators involved in these value chains grade tomatoes differently compared to the other enumerators?
- Tomatoes grow at different circumstances?
- Other ideas?



## Results - 5



- In this pilot the average price for grade A tomatoes is slightly higher for baskets compared to crates
- Explanation: Retailers start selling Grade A tomatoes from baskets, because they degrade easier compared to the crates?
- Tomatoes sold at higher prices in the morning?

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Transport can be quite challenging and is sometimes




## Conclusion

- When using crates:
- Less losses
- More grade A to sell
- Higher shelf life for grade A tomatoes
- Higher profitability
- But also, for some higher transportation costs
- Revenue not for all actors yet)



## Struggles and solutions

- Cost for transportation of plastic crates is more expensive compared to the raffia baskets in terms of quantity
- Did you made agreements about this?
- Cost of returning the crates higher compared to squeezing of empty baskets
- Did you made agreements about this?
- Only one size for the plastic crates
- Are smaller plastic crates still in favour?




## Future of Tomato systems

From pioneering to a paradigm shift to behavioural change

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