

Designing the plots

Treatment 1 Apply organic Manure only (OM)

Treatment 2 Organic manure + recommended planting

fertilizer and topdressing (OM+FERT)

Treatment 3 Planting Fertilizer and topdressing without manure (FERT)

Treatment 4 Control neither Manure nor Fertilizer (ZERO)

Plots design

Treatment one	Treatment two	Treatment three	Treatment four
OM	OM+FERT	FERT	ZERO



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PARTICIPATORY TECHNOLOGY DEVELOPMENT (PTD) IN TOMATO





INTRODUCTION

Participatory Technology Development (PTD) is the means by which Farmer Field and Business School (FFBS) transfers the technology innovation and management practices (TIMPs) of the Tomato value chain through demonstration trials.

The process which is done by the farmers team, involves listing of the common production problems they realize in Tomato value chain which is followed by pair-wise ranking. The production problems farmers experience are listed and coded with abbreviations or acronyms as in the table.

List of production problems

- Low yielding varieties (LYV)
- High incidences of pests (HIP)
- Low soil fertility (LSF)

	LYV	HIP	LSF	Scores	Rank
LYV		LYV	LSF	1	2
HIP			LSF	0	3
LSF				2	1

The ranking process described in the table involves writing the listed problems along the first row and column of the table in the same order as illustrated above. The comparison of the problems takes two of them at a

time and compares them. Out of the two compared, the most challenging one is inserted in the table in red. The ranked problems are then counted, scored and ranked. The highest ranked problem is selected for further PTD process. The lower side of the table is shaded because it is a mirror of the unshaded part.

If in this case low soil fertility is ranked as the highest challenge, the PTD will be set to address low soil fertility.



Participatory layout of PTD plots by two sub groups of FFBS

The process of PTD as described for addressing low Tomato production due to low soil fertility.

Value Chain	Tomato
Learning Enterprise	Tomato
Enterprise VC area	Tomato VC at production level
Background Problem	Low Tomato production due to low soil fertility

Objective	To increase incomes and improve production of Tomato through improving soil fertility sustainably
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Factors to consider:

- Land topography
- Runs (blocks should face East to West)
- Source of manure/fertilizer
- Certified Seed for a high yielding Tomato variety

Setting of PTD blocks	Each plot should be 5m by 5m
	Walking space between plots of 1 metre
	Select high yielding Tomato variety
	Equal plot should have same Tomato plant population
	Plots should be right angled
	Spacing of Tomato at 60cm by 45cm
	Data to be collected from 10 randomly Tomato plants
Parameters for measure of data collection	All other management practices same for each plot
	Plant Height
	No of leaves per plant
	Length of leaves
	Width of leaves
	Stem circumference
	No of trashes
	No of flowers per trash
	No of fruits per trash
	Yields in kgs