Introduced Potato Zero Tillage Production (PZTM Cambodia

Var Sophal

Department of Horticulture, Faculty of Agricultural Scienc

Royal University of Agriculture

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- Histrory of Potato Research
- Recommend Potato Variety
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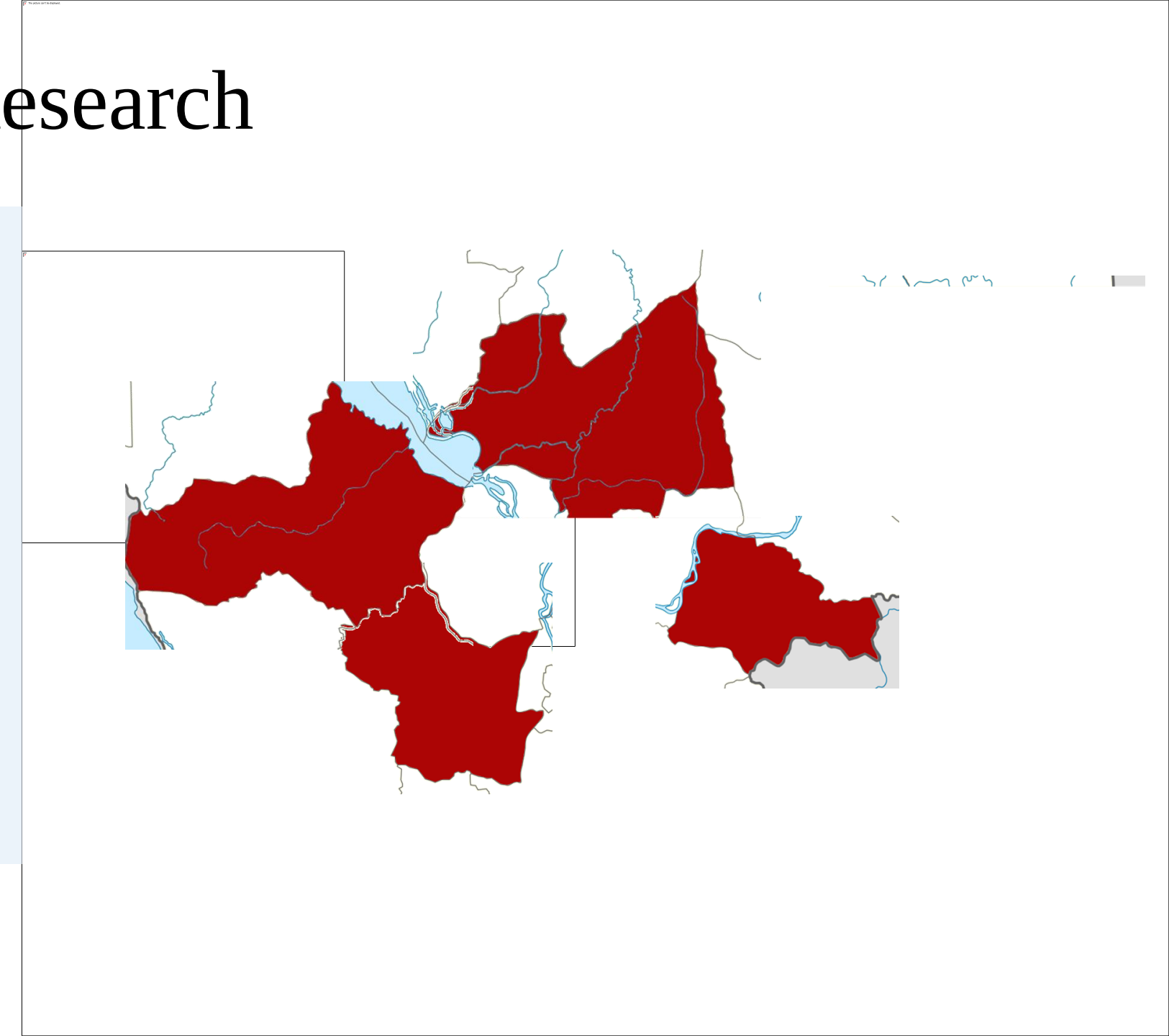
- Problem with Zero Tillage

History of Potato Research

- Mondulkiri province*
- Battambang
- Pursat*
- Kompong Thom*
- Kompong Chhnang
- Tboung Khmom
- Kompong Speu
- Kandal
- Phnom Penh (RUA)*

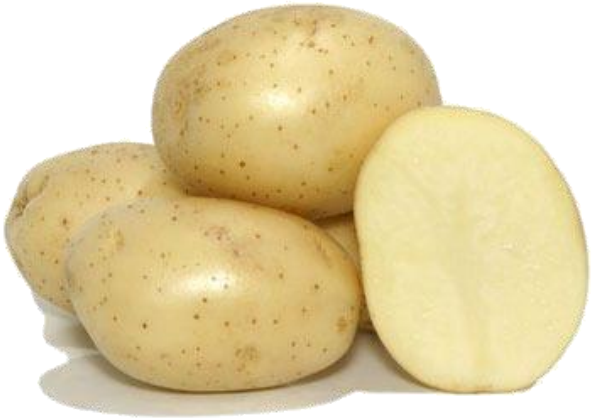


* Location of trial obtained average yield greater than 10 ton per hectare

Location where zero tillage trial conducted

Recommend Varieties and Tested in 2024-2025

Marabel
(Tested 2018-2019, 2024)

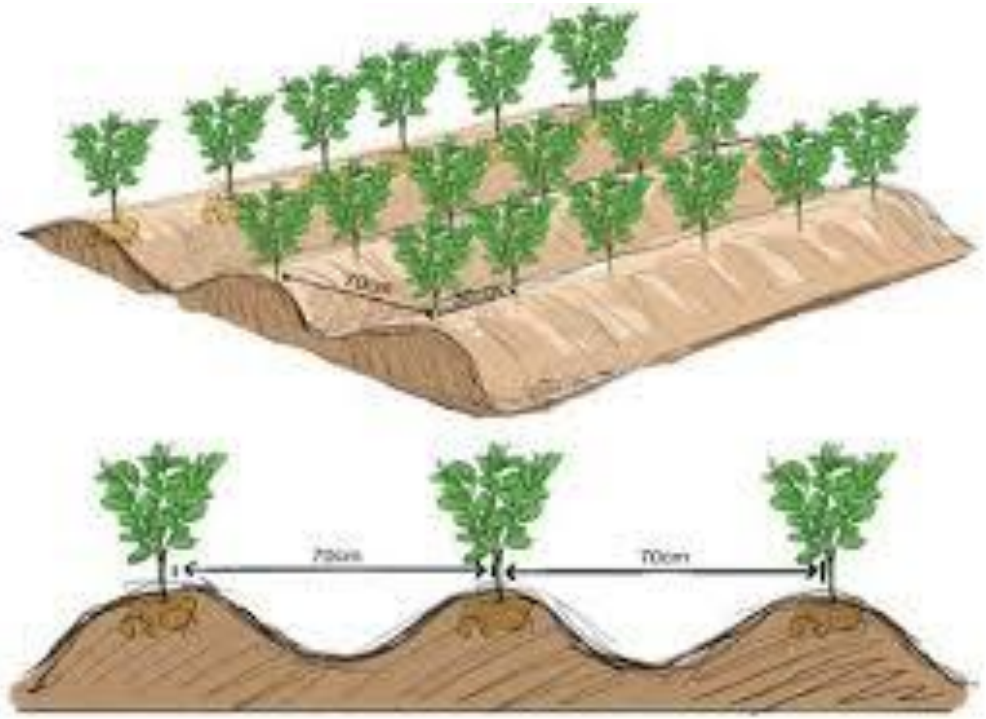


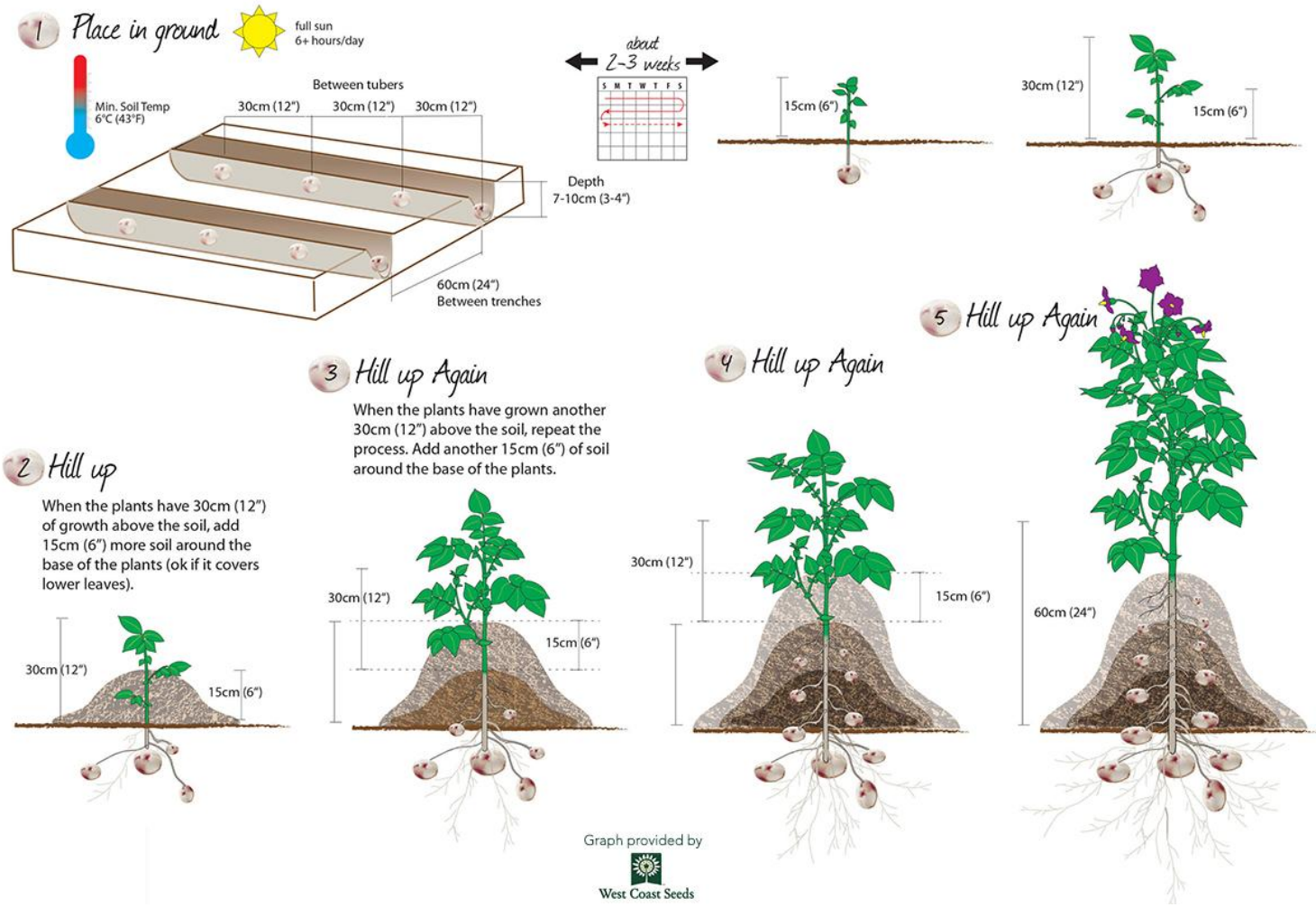
Atlantic (Tested 2023-2024)

PO3 (Tested 2016-2019)

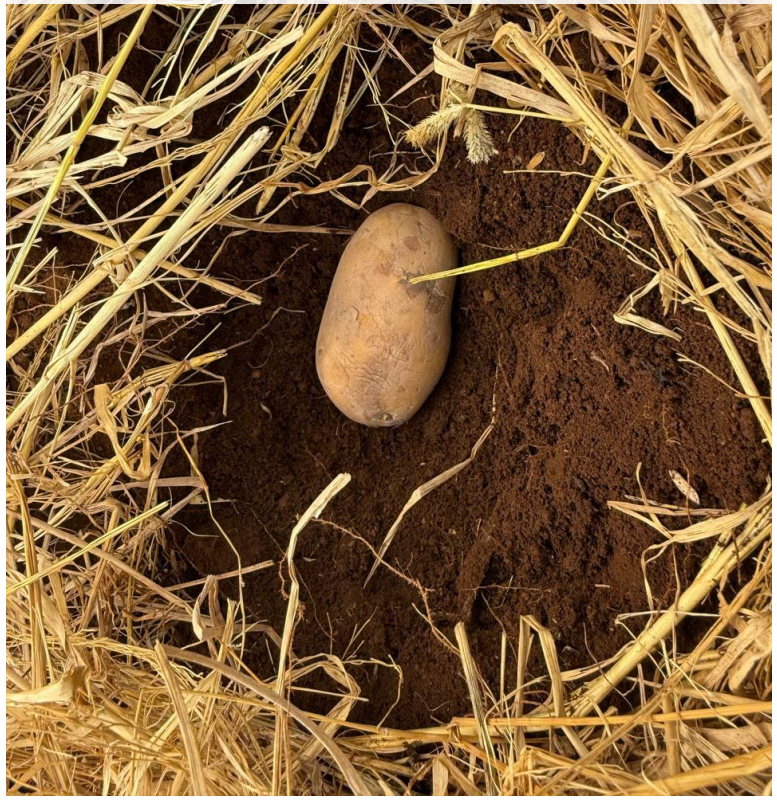
Potatoes Conventional Management

Row raising





Potatoes Zero Tillage Managment

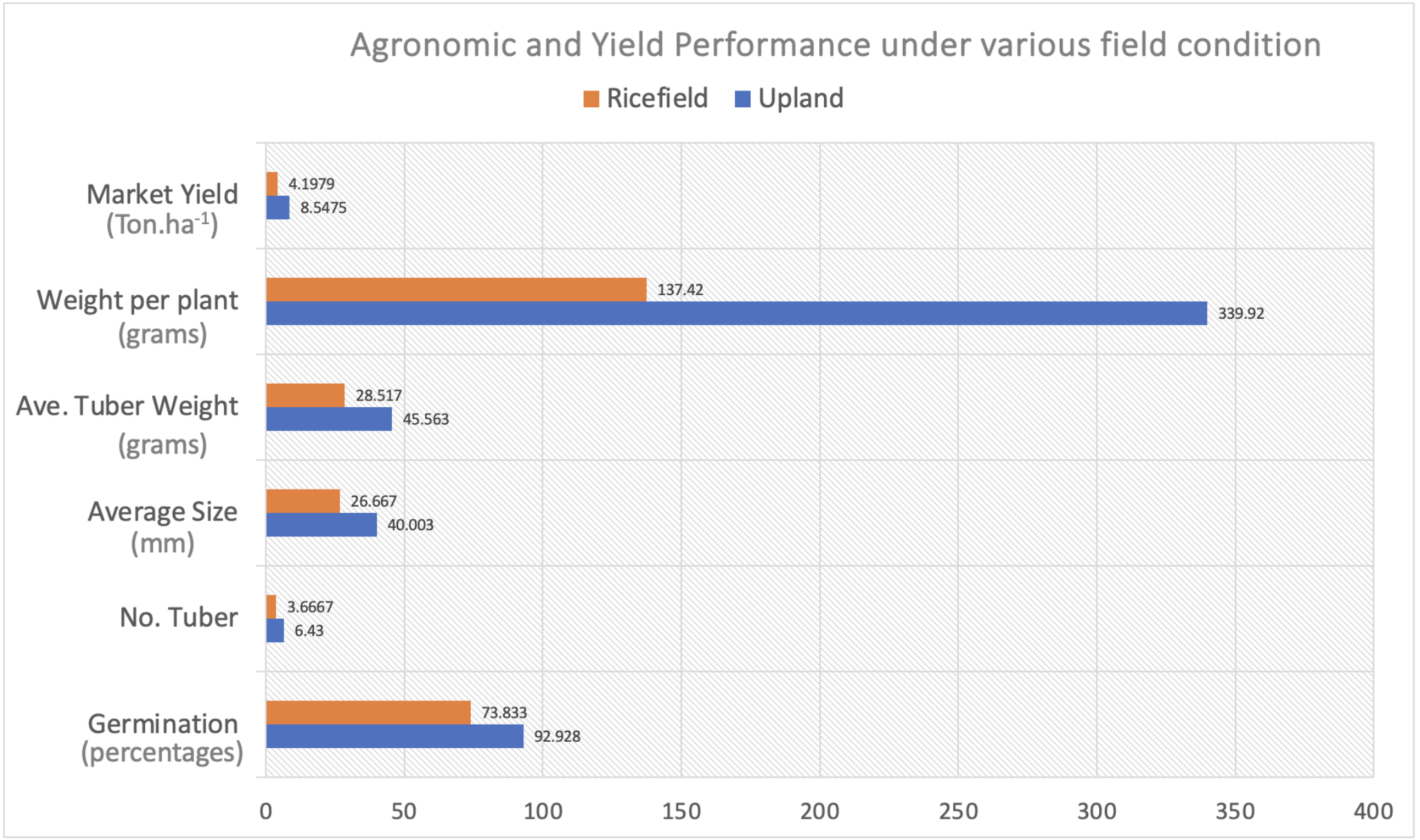


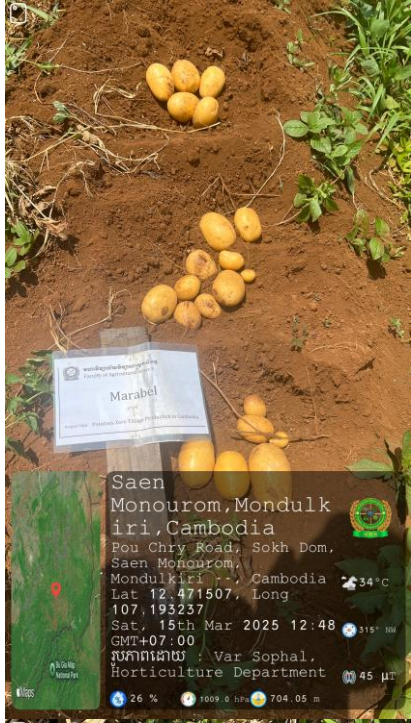
1 Spread the straw as bed about 1,2m wide
About 10cm thickness
Cover the edge of bed with soil to protect from wind

2 Make a hole to Place the potatoes on bed

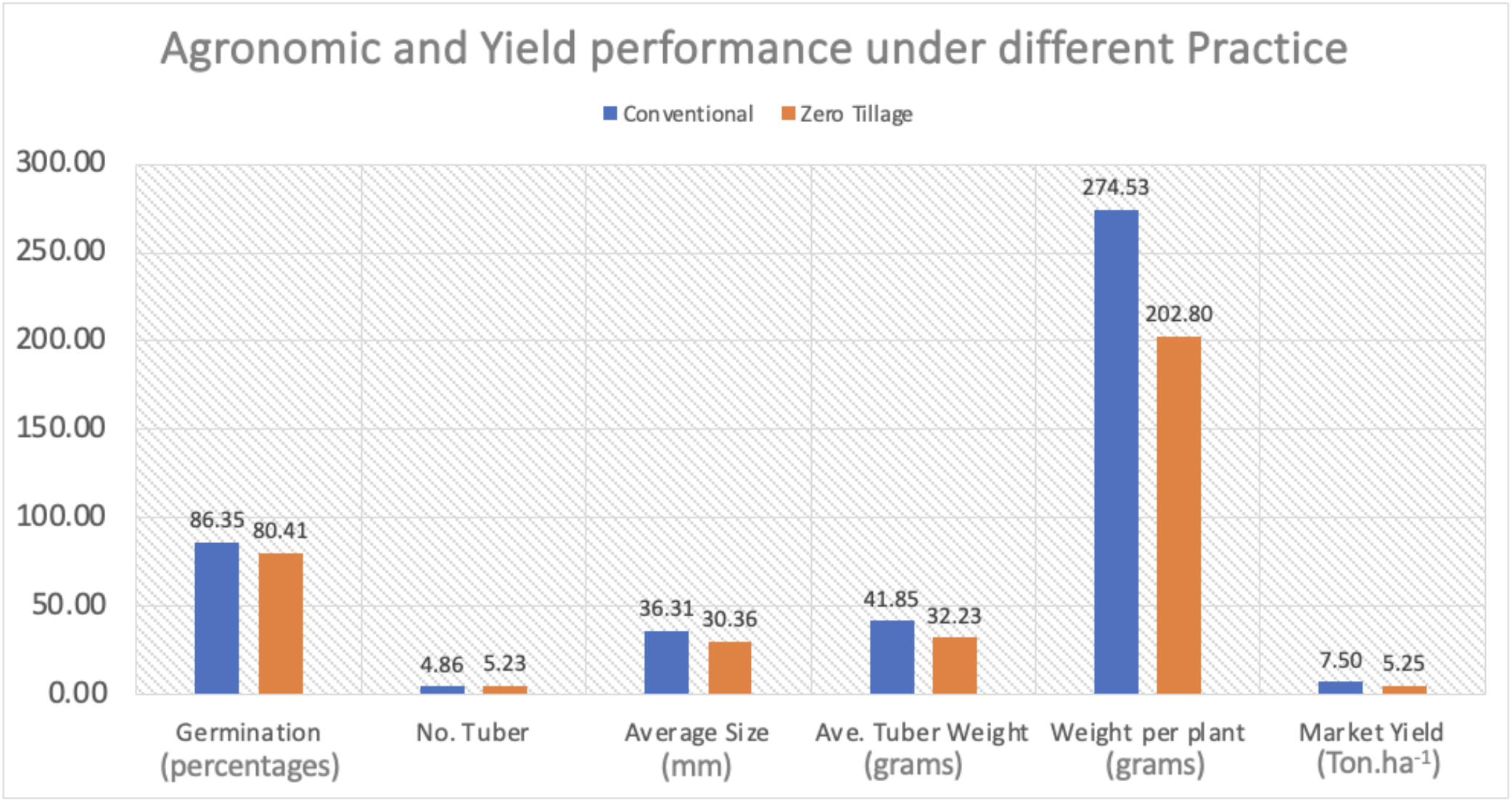
3 Cover potato with soil or compost on top
About 10 cm

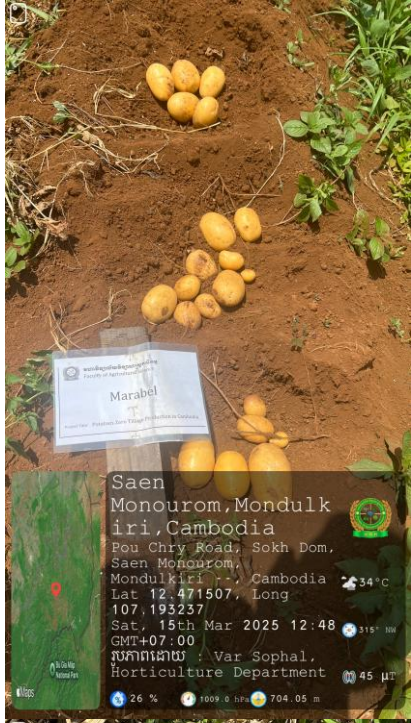
Result and finding

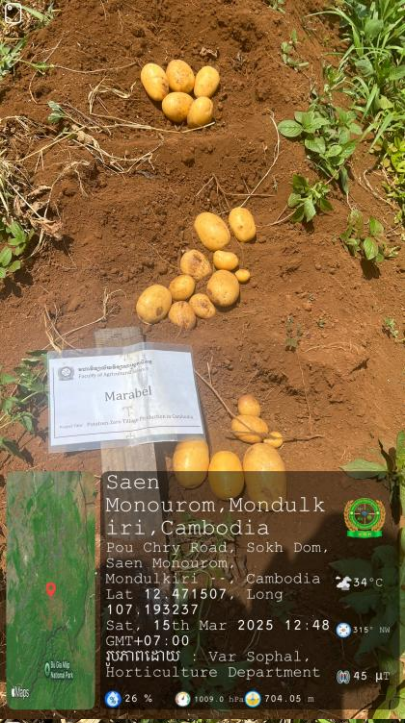


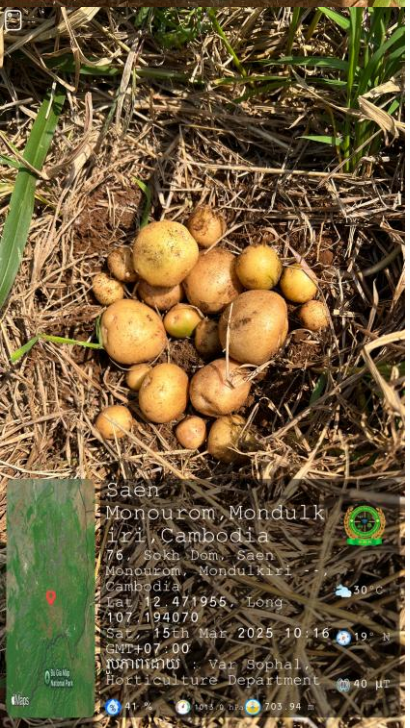


Result and finding (cont…)









Result and finding (cont...)

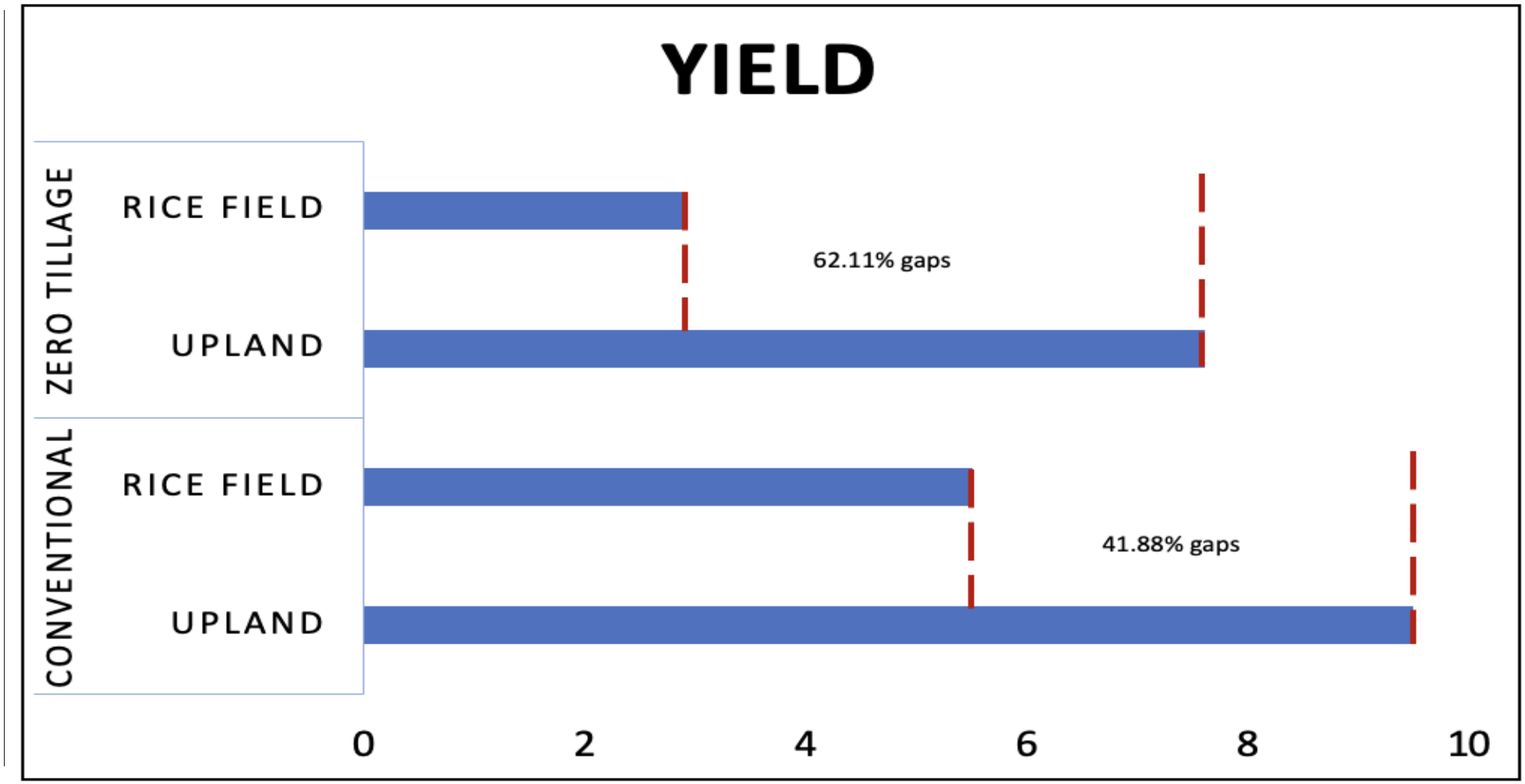


Figure 3. Yield differences base on each location under similar management.

Result and finding (cont...)

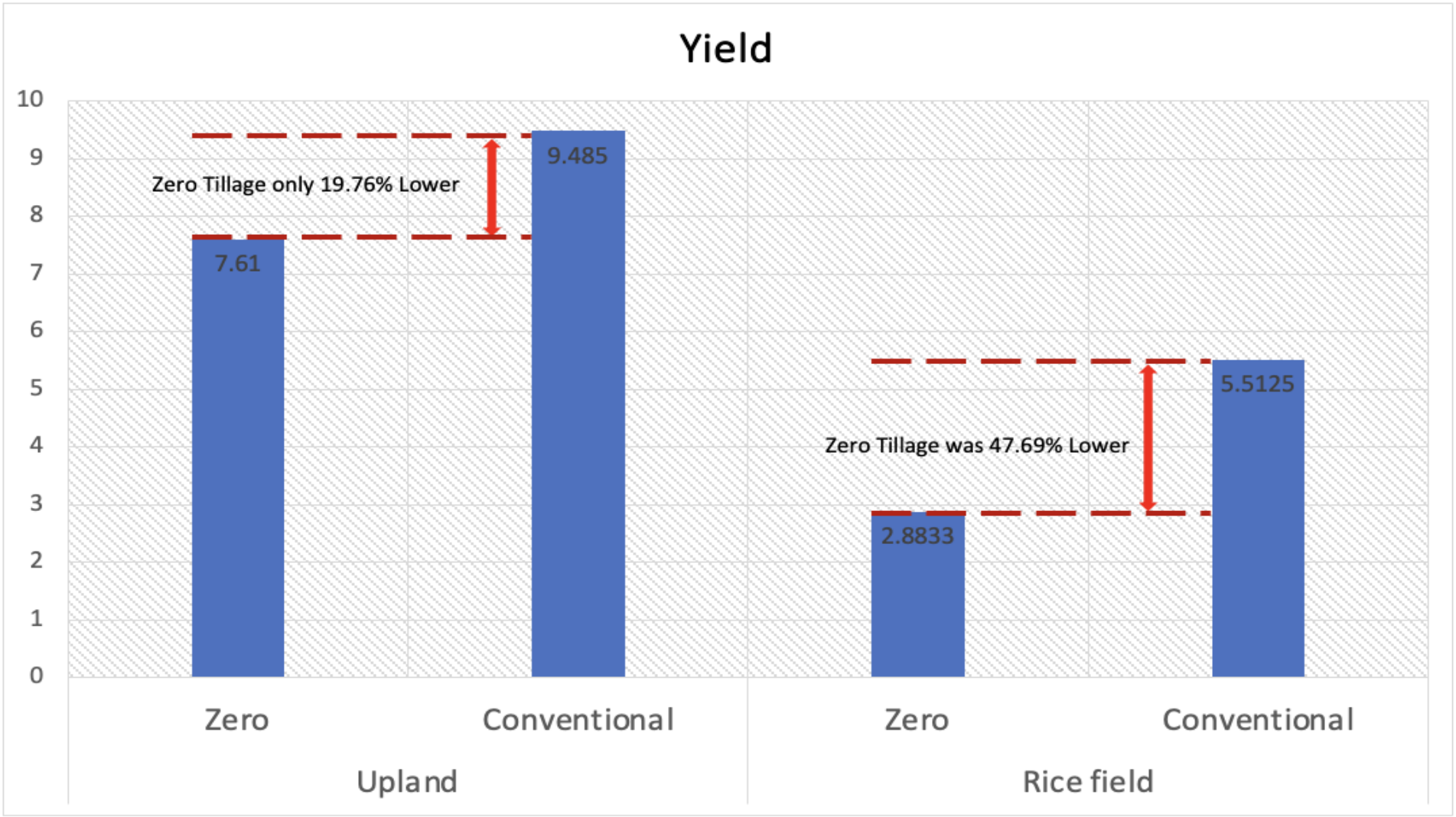


Figure 4. Yield differences base on each management under various field location.

Benefit of PZTM to Coventional Practice

Soil Themo conductant

1 Low ground temperature during cold dry season and high temperature during dry seasnon,

Soil Moisture

2 Better soil moisture resulting less frequent irrigation

Problem Encountered (rainfed ricefield potato planted, Koh Nhaek District, Mondulkiri, 2024-2025)

1 Seed rot due to high temperature, fungus, and insect damage (red ants, termites) on sandy soil.

Problem Encountered

2 Seedling rot, fungus from straw

3 Insect invading
(red ants, termites)

(Phytophthora sp)

Bacteria wilt

4 Wilt of Potato plant

(Bacterial and Phytophthora)

Funded research by:

Thank You!

Var Sophal

Department of Horticultlure, Faculty of Agricultural Science

Royal University of Agriculture

var.sophal@rua.edu.kh

Telegram: 071-56-33-337