



# Effects of Flooding and Paper Mulch on Fraser Valley Rice

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## Introduction

- Most rice (*Oryza sativa*) is grown from transplants in flooded paddies
- Dry-field production is an alternative rice production method
- Flooded rice paddies have lower weed pressure but are heavy water users with high methane emissions
- Paper mulch is a biodegradable product for weed suppression

## Objectives

- Compare rice yield and weed pressure between flooded and dry-field production systems
- Test paper mulch as a weed management tactic in both systems

## Materials and Methods

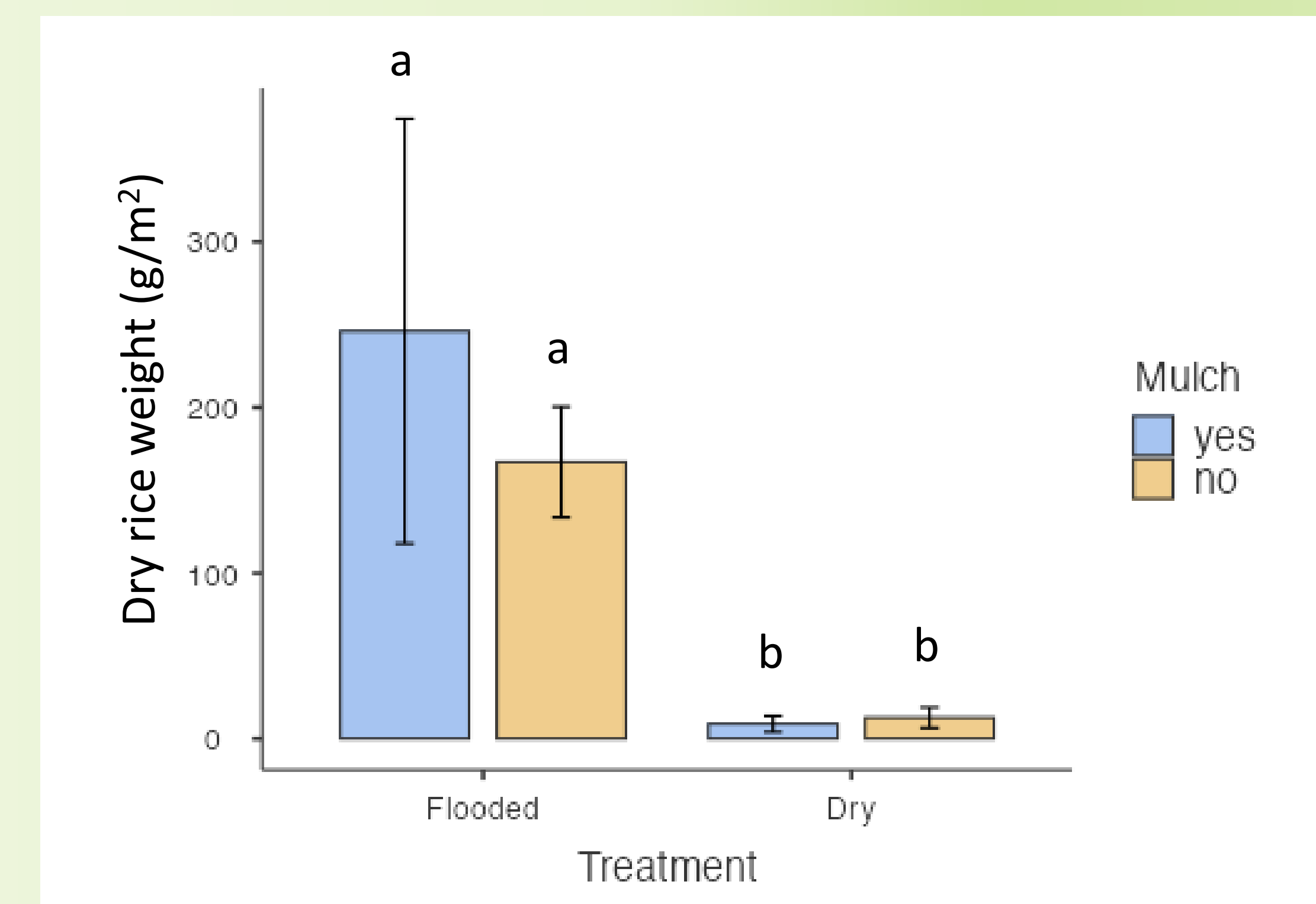
- Completely randomized split-plot design with 3 replicates
- Main plot treatments: flooded or dry-field rice
- Subplots treatments: paper mulch or no paper mulch
- Irrigation: Constant drip in flooded plots and overhead in dry plots
- Rice transplanted on June 7, 2023 and harvested on October 22, 2023

Rice yield was higher in flooded paddies than dry field plots and was unaffected by paper mulch.



Rice plots at the KPU Farm on Richmond's Garden City Lands.

## Results



Dry rice grain yield from flooded plots and dry plots. Error bars denote standard error. Means labelled with the same letter do not differ significantly (Bonferroni test,  $n = 3$ ,  $\alpha = 0.05$ ).



Scan me to find out more!

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## Conclusion

- Flooded plots produced more rice than dry plots.
- Paper mulch had no effect on yield.