

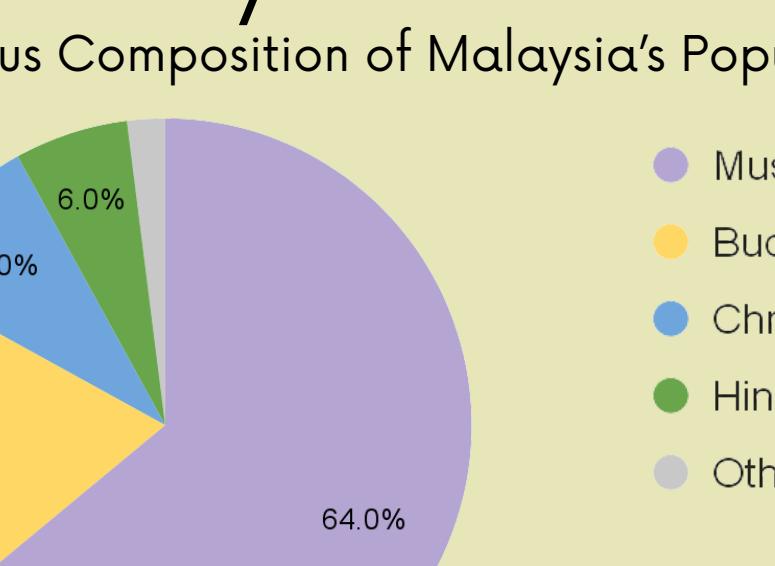
Introduction

Feather waste

In Japan

Down comforters are the **No.1** bulky waste item in Tokyo

In Malaysia
Religious Composition of Malaysia's Population



can't eat poak
There are a lot of chicken feather

Overusing chemical fertilizers

- Harmful to the environment and humans
- Often used to grow crops

Large quantities of mesocarp fiber

Empty Fruit Bunch



Coco Peat



Objective

Producing organic fertilizer from feather waste that is as effective as chemical fertilizer, and using it to grow vegetables in coco peat.

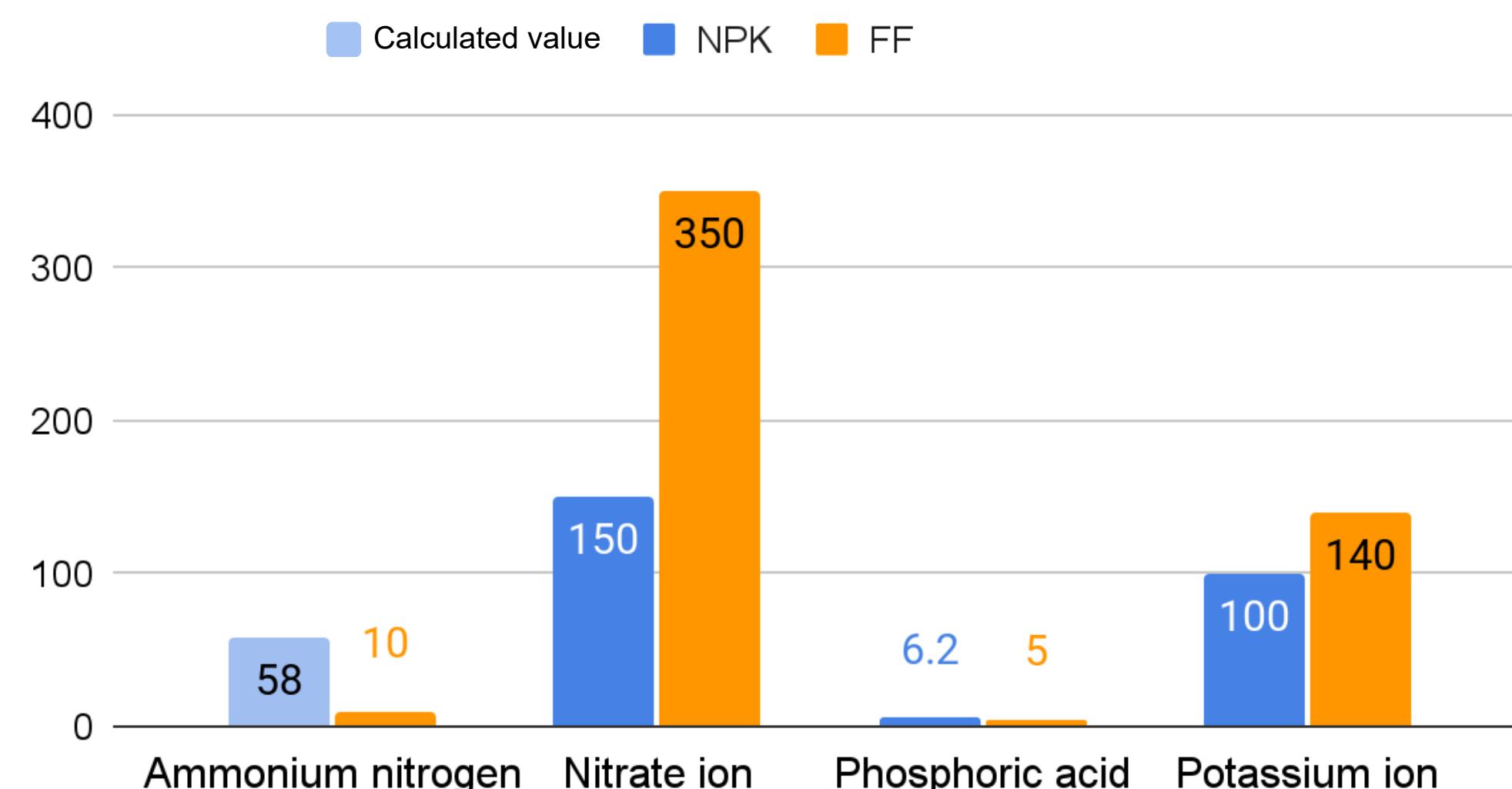
Experimental Method & Results ①

Feather fertilizer (FF) preparation

- feather
- salts
- bacteria
- water



Nutrient content of fertilizer (mg/L)

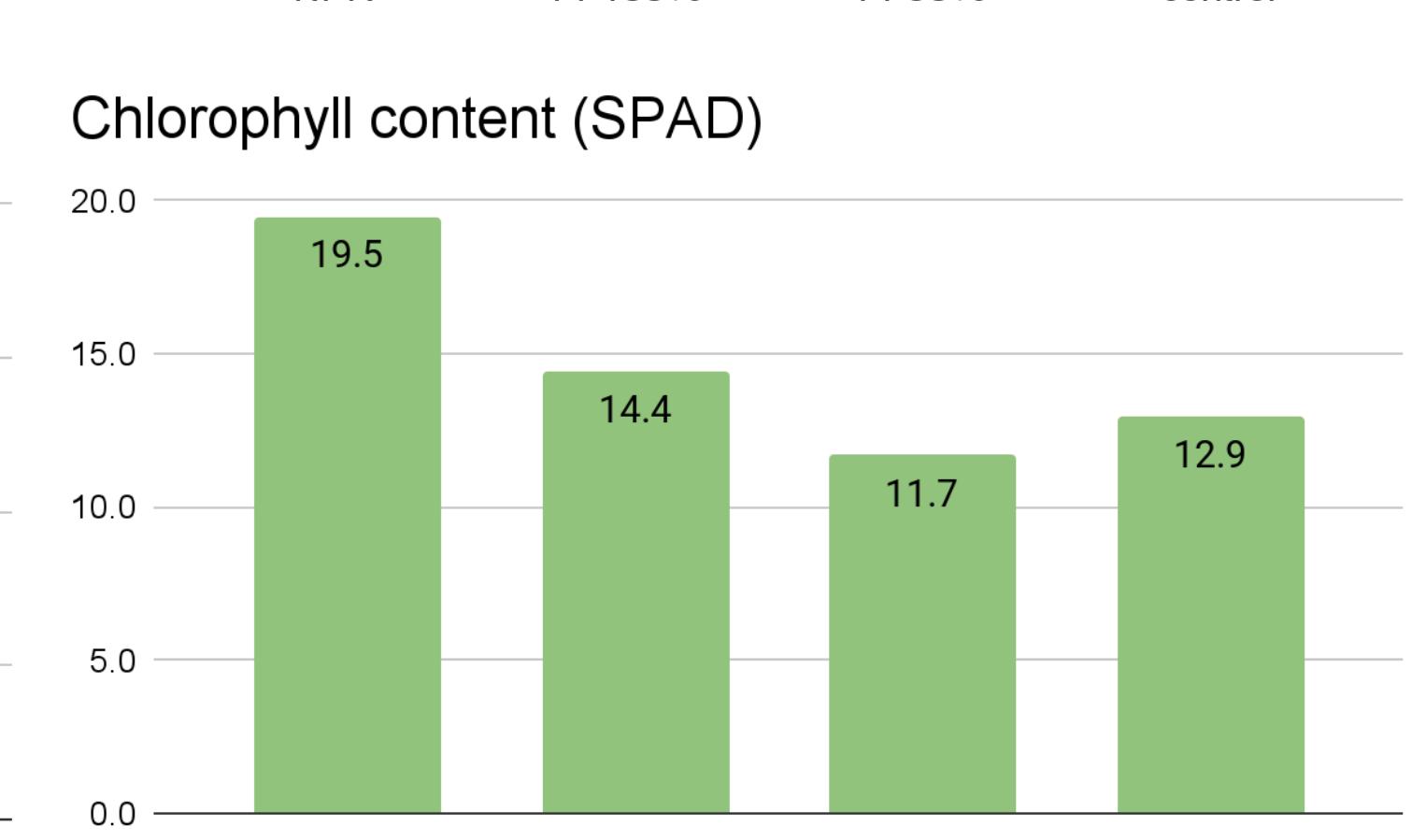
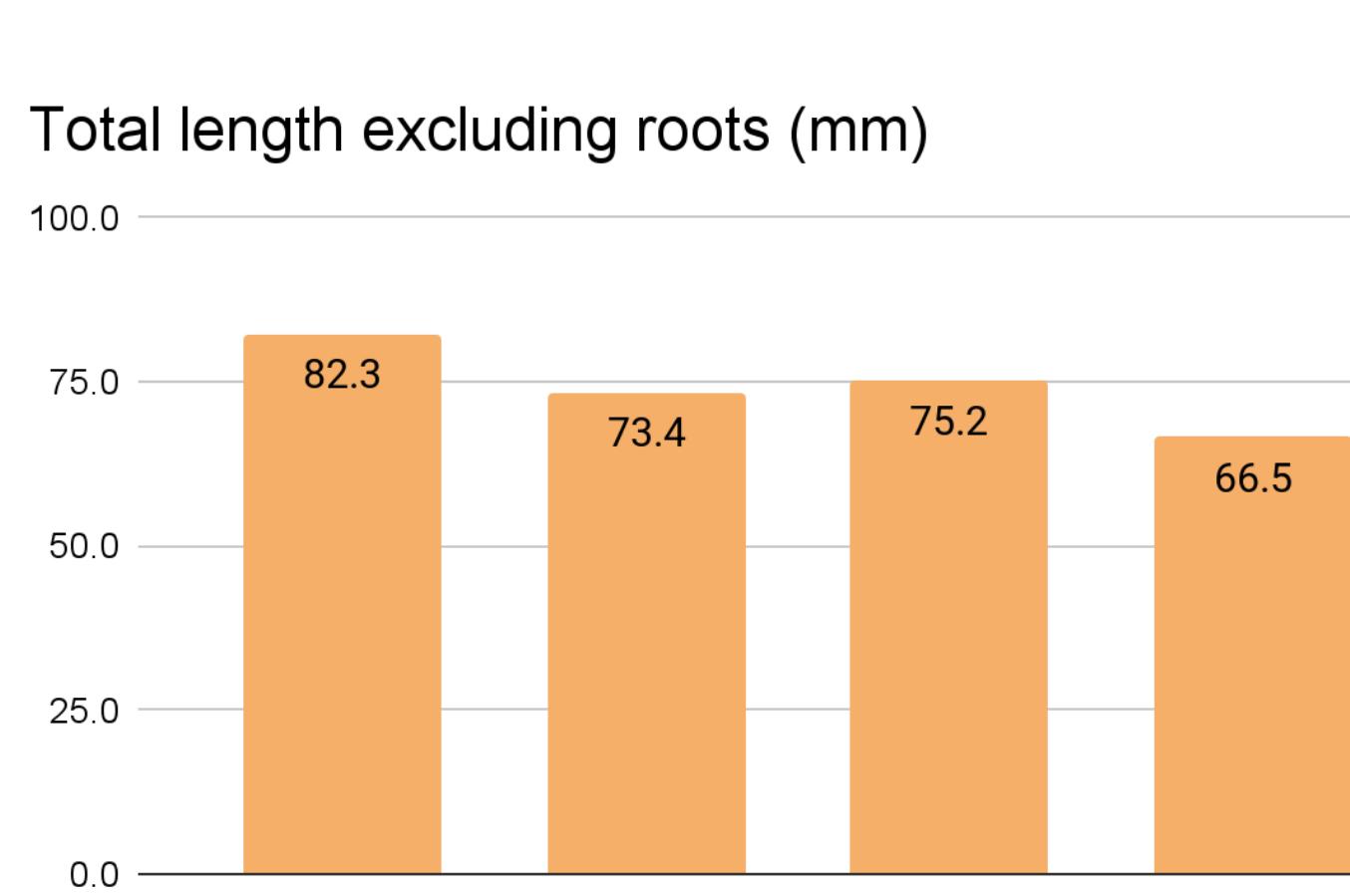
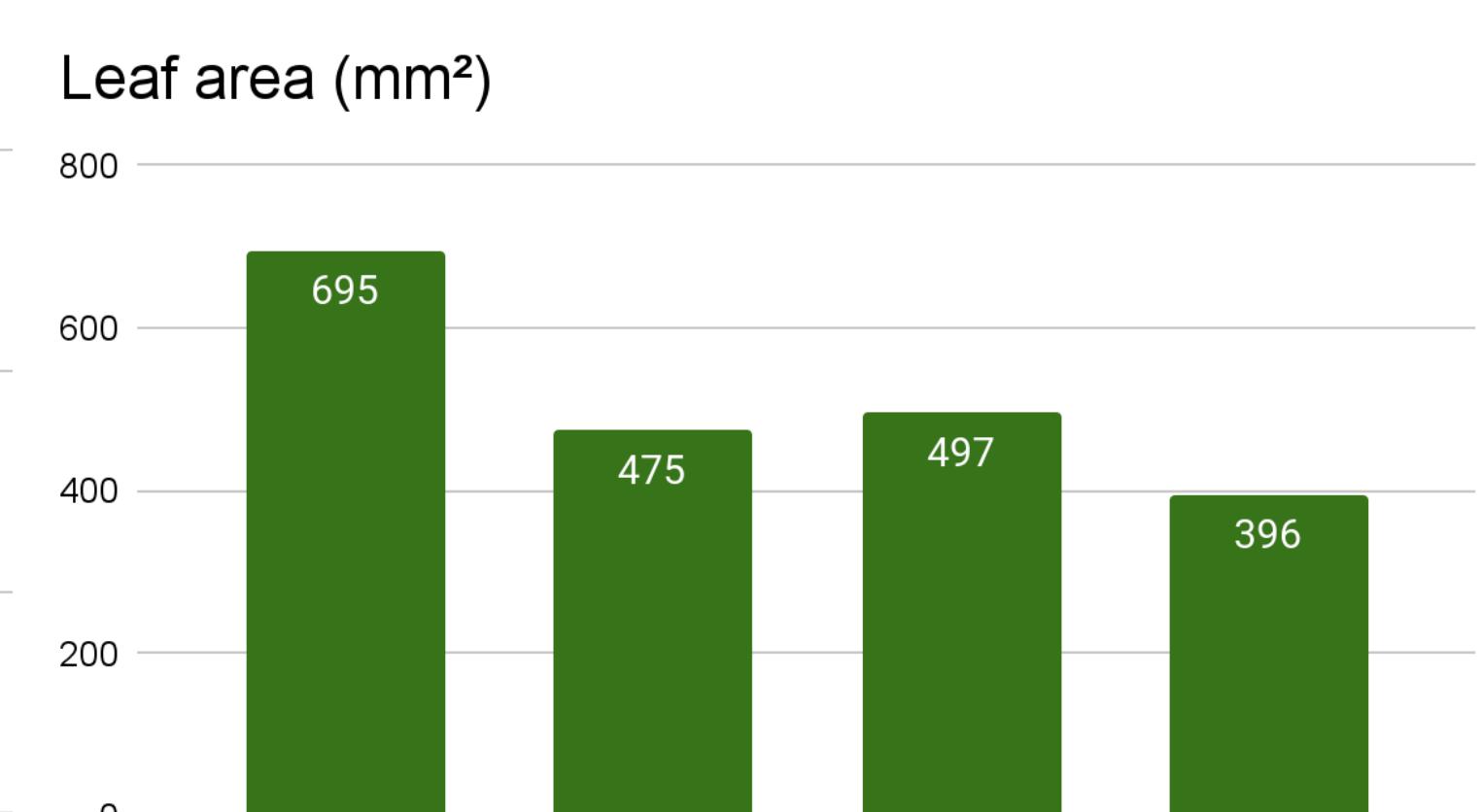
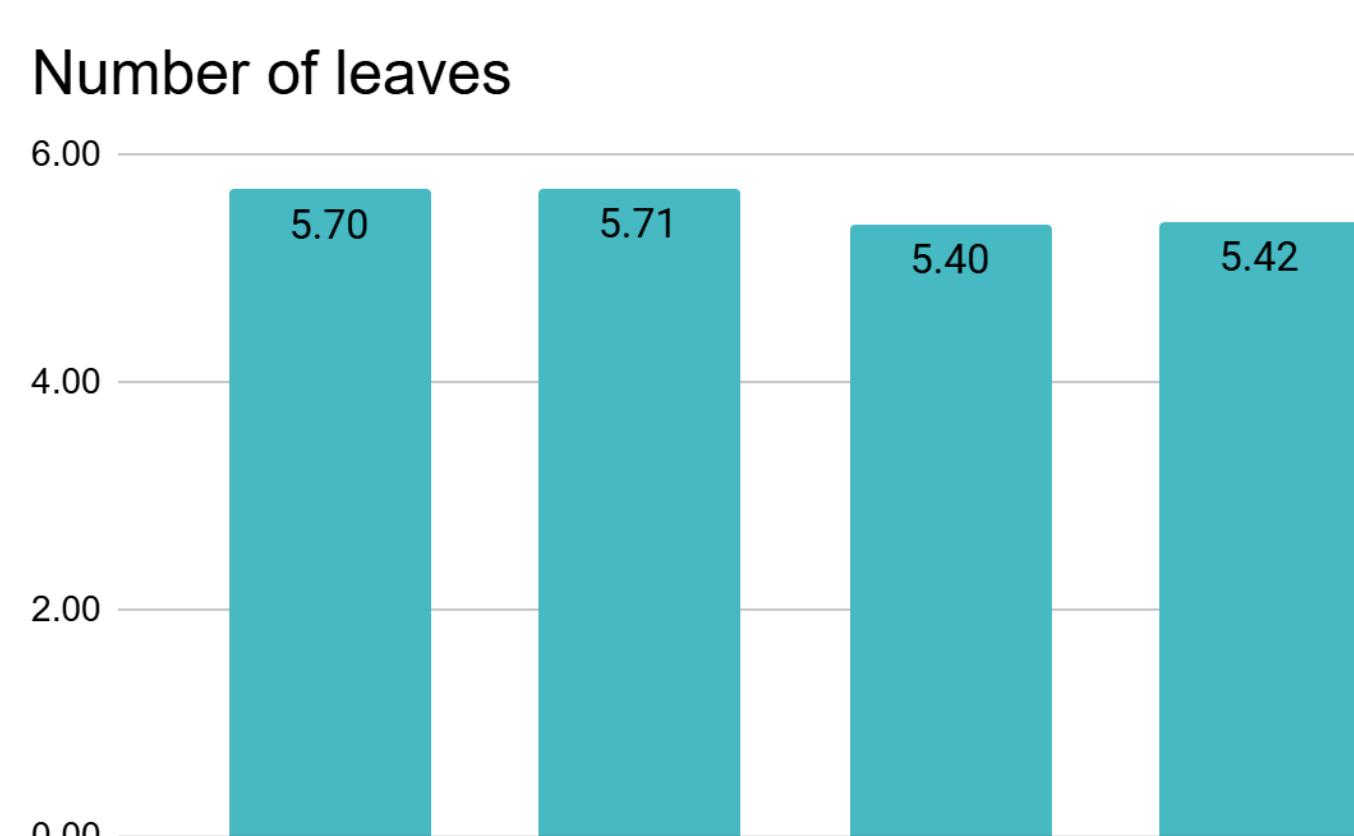
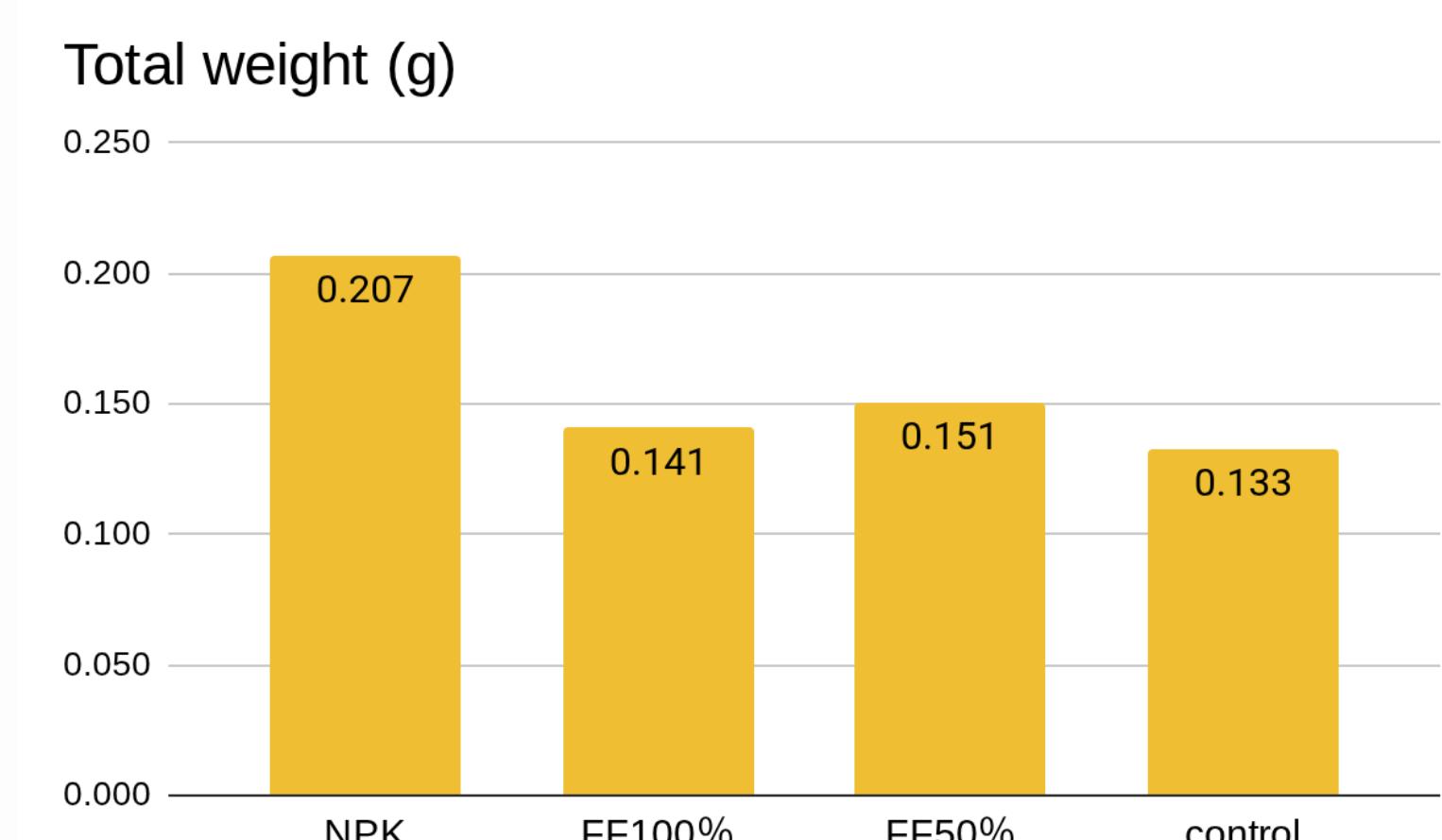
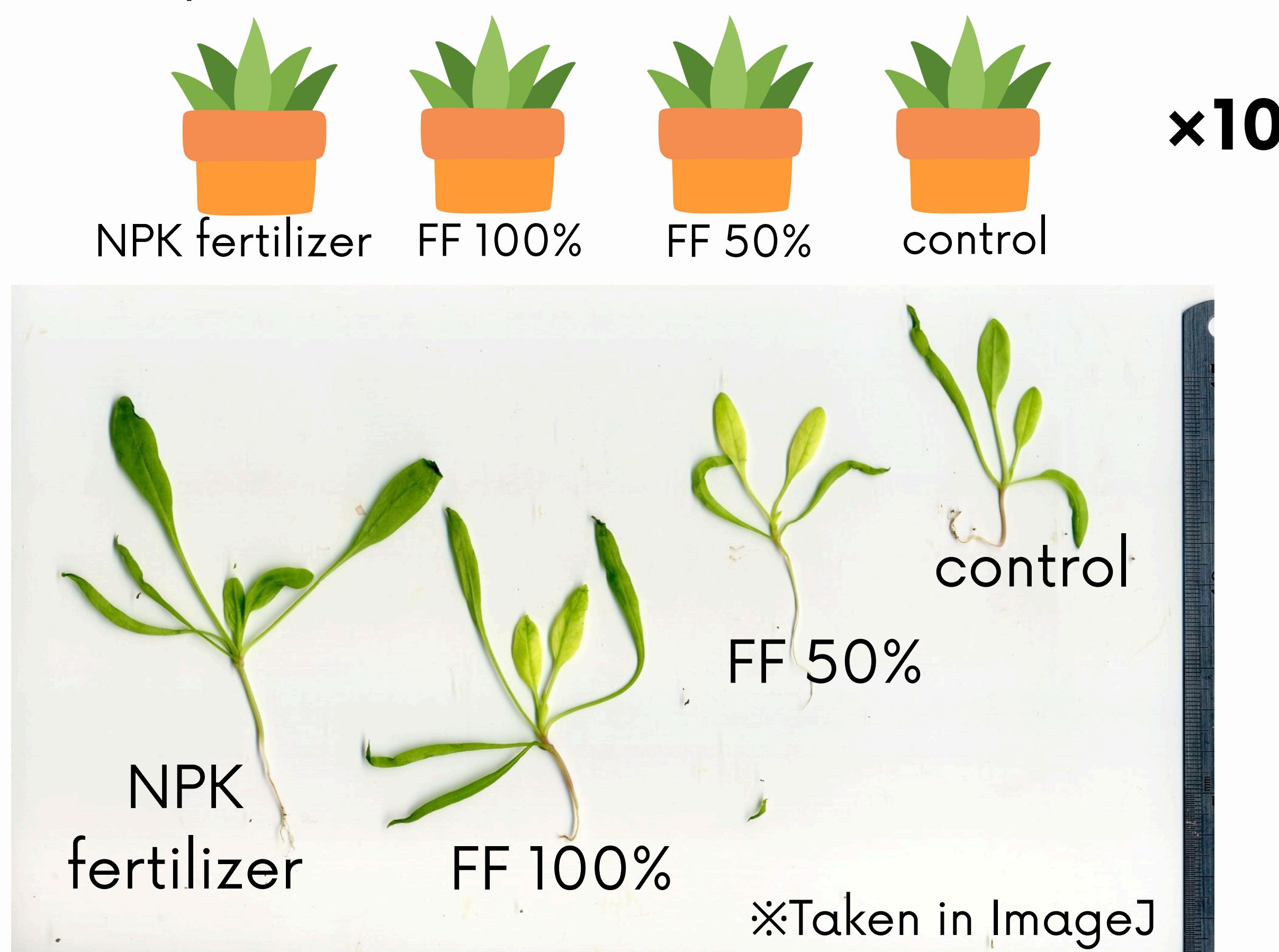


Experimental Method & Results ②

FF evaluation using spinach

Day 0 plated seeds
Day 7 most have sprouted
Day 16 applied fertilizers
Day 35 observe the effects

We compared:



Consideration

1. The bacteria increased abnormally
2. The poor balance of nutrients in feather fertilizer

Conclusion

A lot of nitrate ions was obtained from feather waste. FF is not as balanced as NPK fertilizer. Plants were grown using eco-friendly coco peat.

References

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