⑤(田村班)

Let the Flowers Bloom in Wastelands

A. Kokomi　K. Kokoro　T. Manaka　Y. Nodoka　Y. Yuzuho
T. Osamu

Abstract

Our goal was to develop a low-cost, low-maintenance method for creating flower beds. Our hypothesis was that *N.commune* could be used to reduce irrigation water, and grub's dung pat to enrich the soil, but this was not effective.We also tried to develop the methods to protect plants against deer, and found an effective design.

1　Introduction

We were concerned about a decline in security in Hyogo Prefecture due to over grown gardens. We thought that gardening by residents could be utilized. To achieve this goal, we researched creating flower beds that are easy maintenance.

2　Theory and Experiment

① Attempt to reduce irrigation water using Nostoc species.
② Attempt to reduce fertilizer costs using rhinoceros beetle larvae droppings.
③ Attempt to protect planters from damage caused by deer.

3　Results

① Nostoc commune had an effect, but soil fertilization could not be determined.
② The presence of dung did not change flower growth.
③ Deer have preferences for the plants they eat.

4　Conclusion

① Nostoc commune has a moisturizing effect. The effects of soil fertilization through nitrogen fixation were not apparent in about six months.
② The dung of the rhinoceros beetle had no effect as manure.
③ We can use the flower bed design so plants are not eaten by deer.

5　References

Corporation Kakuichi (2017/4/12) Seriou's damage to crops caused by deer Summary of Causes and Measures
https://www.kaku-ichi.co.jp/media/wildlife/deer (2025/1/15)
Second High School Science and Mathematics Department Research Project （2024） Water retention of the Nostoc commune
https://provenwinners.jp/magazine/deer_resistant_flowers/ (2024/5/27）
Hyogo Prefecture(2022/9/14) Promotion ofmeasures against vacant houses
https://web.pref.hyogo.lg.jp/ks26/ju-so-kei/akiyataisaku.html (2025/1/15)

6　Keywords

N.commune, gardens, fertilization, low-maintenance, protection