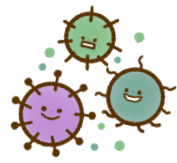


# Let's stop the increase of mold with familiar plants



Niigata Prefectural Kokusai Joho High School

## INTRODUCTION

### 1. Purpose

To stop the increase of mold with common herbs

### 2. Motive

- Chemical mold inhibitors are dangerous
- We want to inhibit mold growth by using natural ingredients



## HYPOTHESIS

**Insect-repelling** herbs have the ability to inhibit mold

## EXPERIMENT

	garlic	wasabi	ginger	mint	onion	tea leaves	chili pepper	radish	perrilla	no plants
unmashed	x	x	x	x	x	x	x	x	x	x
mashed	○	○	△	x	x	x	x	x	x	x
increased amount	○	○	xor△	x	○	x	x	x	x	x

## RESULTS

1. garlic
2. wasabi
3. onion

- Unmashed herbs had no effect
- Increasing the amount of each plant decreased mold growth and growth rate (Results influenced by temperature and other conditions)

## CONSIDERATION

### 1. mashed

By mashing herbs, mold growth inhibition may increase because **more components are produced**

### 2. increased amount

- By increasing the amount of mashed herbs, the effects may **improve and be multiplied**
- Herbs with **stronger smell** may have **stronger effect**



## IN THE FUTURE

### 1. Problem

- Determining which herbs **works the best**
- What to do about **strong smell of ingredients**

### 2. Solution

- **combining** of ingredients (good smell and bad smell)
- **Alcohol** extraction, **boiled water** extraction

### 3. Final purpose

- **Commercialization**

## REFERENCES

SanwaFoods, "Food Report", <https://www.sanwafoods.co.jp/report/03.html#:~:text=>