



FEMALE BEAN BEETLES: TRAVELLERS?

Will the female bean beetle (*Callosobruchus maculatus*) remain stationary when there is a lack of available beans to lay eggs on?



Poor start



Rich start



Day 1

Day 2

Day 3

Figure 1: Illustration of the female bean beetle movements in the dish for 3 days, and overview of the position of eggs in the dishes.

1. WHAT WE DID

- Large dishes containing two smaller dishes with **45 (rich patch)** or **5 mung beans (poor patch)** in each.
- An **opening** in the small dishes created allowing the female to **move between** the small dishes.
- Fertilized female beetles placed in **one** of the small dishes (Rich start or poor start).
- **4 replicates** of each.

2. WHAT WE GOT

- Significant movements from the **poor patch** to the **rich patch** dish
- **Very rare** or no movement from the **rich patch** to the **poor patch**.
- **Hypothesis:** H0: "females will move independently from their starting point".
- $p\text{-value} < 0.01 < \alpha \leq 0,05$, **we reject H0** in favor of H1.
- \Rightarrow There is a **correlation** between the female movements and the **number of beans in the dish**, our results are **significant**.

3. CONCLUSION

- Females **prioritize** laying eggs in the **rich patch** instead of the **poor patch**.
- The **movement** of the female depends on the initial **starting** point.
- The female **will not** remain stationary when there is a lack of available beans.

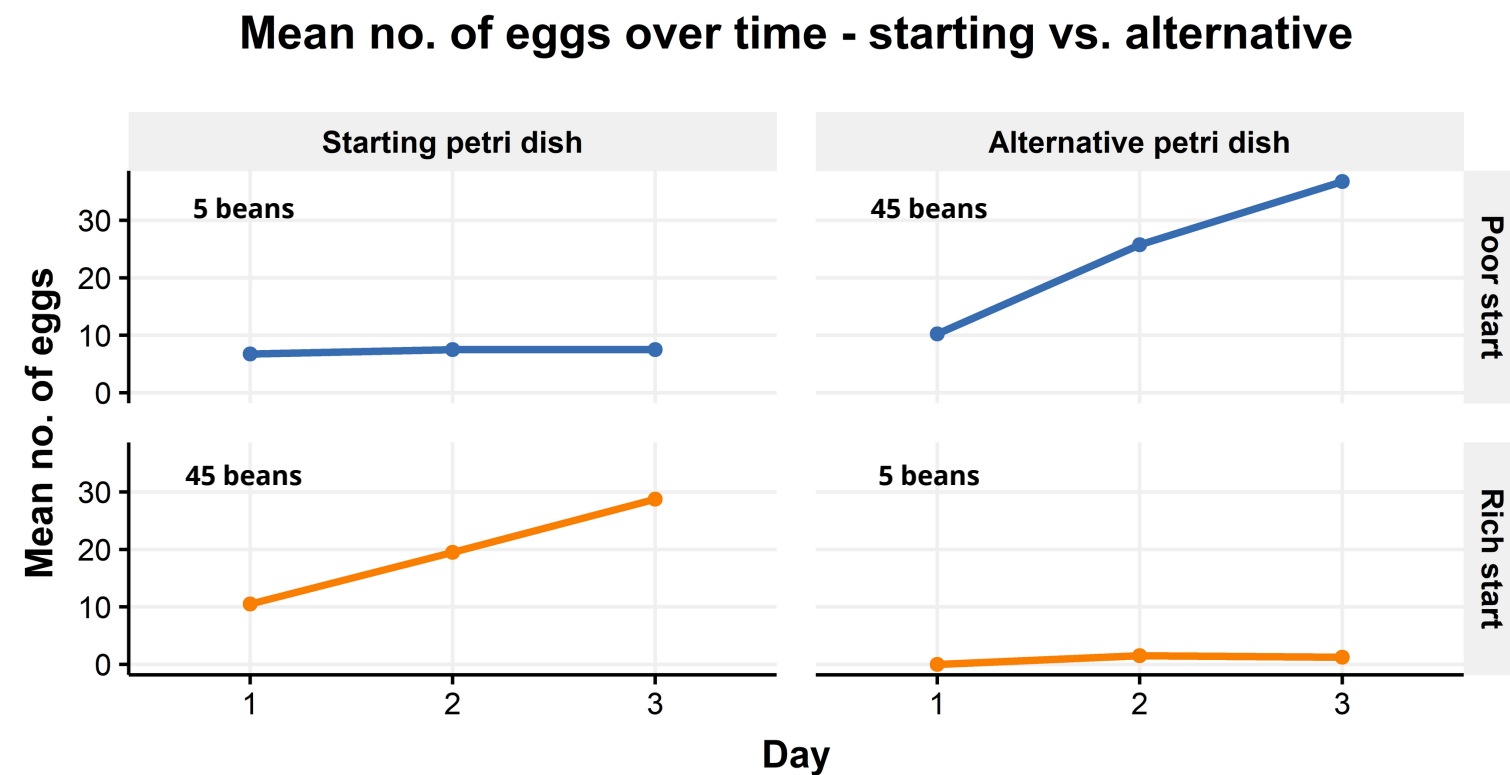


Figure 2: Mean number of eggs laid in each dish per day. Read colour by colour, from left to right.



SCAN ME