

DOES YOUR HOME BEAN MATTER?

1. OUR DESIGN QUESTION

Does the bean beetle *Callosobruchus Maculatus* prefer its natal bean?

2. OUR EXPERIMENTAL SET UP

Distribution of beans in petri dish based on weight

3 females and 2 males in each petridish



Strain natal to mung beans

Strain natal to black eyed peas

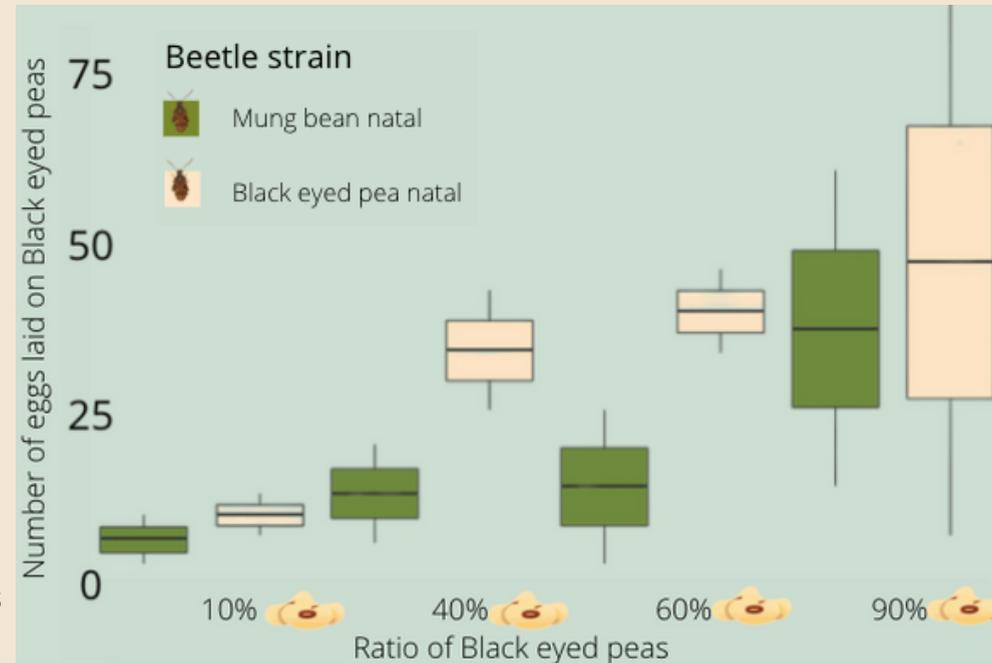
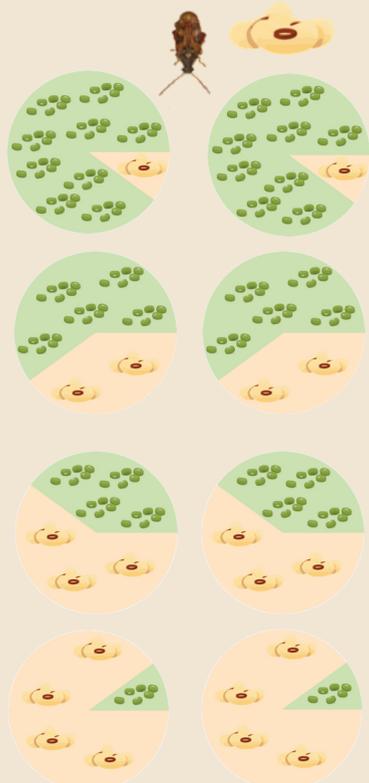
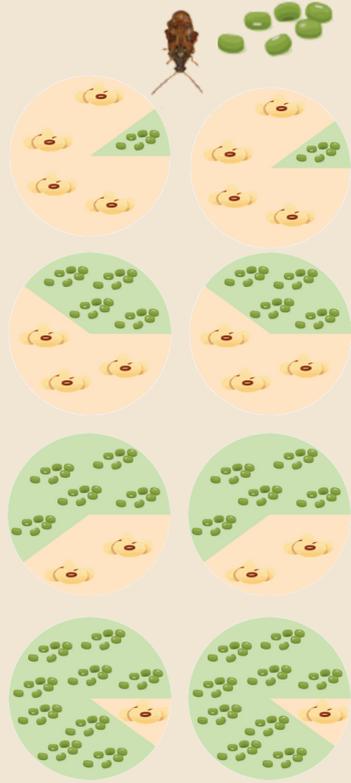


Figure 1: Number of eggs laid on mung beans (green) and black eyed peas beige by beetles natal to the black eyed pea:

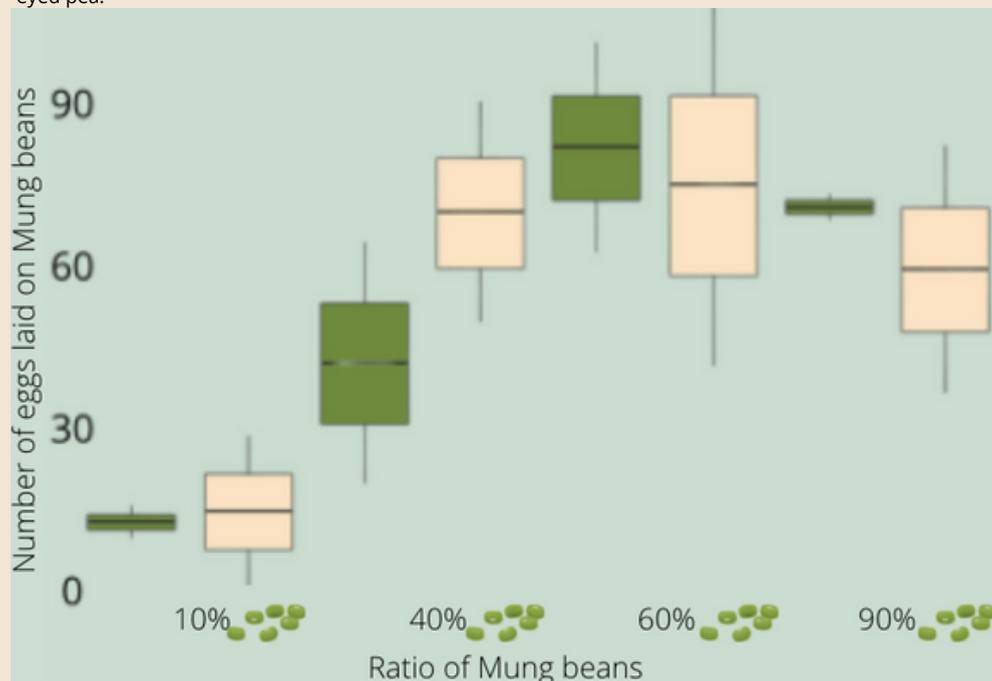


Figure 2: Number of eggs laid on mung beans (green) and black eyed peas beige by beetles natal to mung beans

3. MORE EGGS ARE LAID ON MUNG BEANS

- Both beetle strains laid more eggs on mung beans as portion of mung beans increased ($p < 0.0001$).
- Less eggs were laid on black eyed peas by black eyed bean natals as portion of black eyed peas decreased ($p < 0.0001$).
- Mung natals showed no significant difference in eggs laid on black eyed peas across treatments ($p = 0.2770$)

4. BUT IT MAY NOT BE INFLUENCED BY PREFERENCE FOR NATALITY

Both beetle strains seemed to prefer mung beans. These results may have been **influenced by this beetles preference to lay eggs on unoccupied beans**, as a distribution by weight led to there being a lot more mung beans than black eyed peas in most treatments

Made by: Førland, S. Gulbrandsen, R,C,B.
Opsanger, V.,K. Dhakal, N. Ulvestad, A,M.



SCAN ME

References:

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- [3] Nisar, M. S., Haq, I. U., Ramzan, H., Aljedani, D. M., Qasim, M., Islam, W., & Khan, K. A. (2021). Screening of different legumes for the developmental preference of *Callosobruchus maculatus* (Bruchidae: Coleoptera). *International Journal of Tropical Insect Science*, 1–8. <https://doi.org/10.1007/s42690-021-00507-6>