

# 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

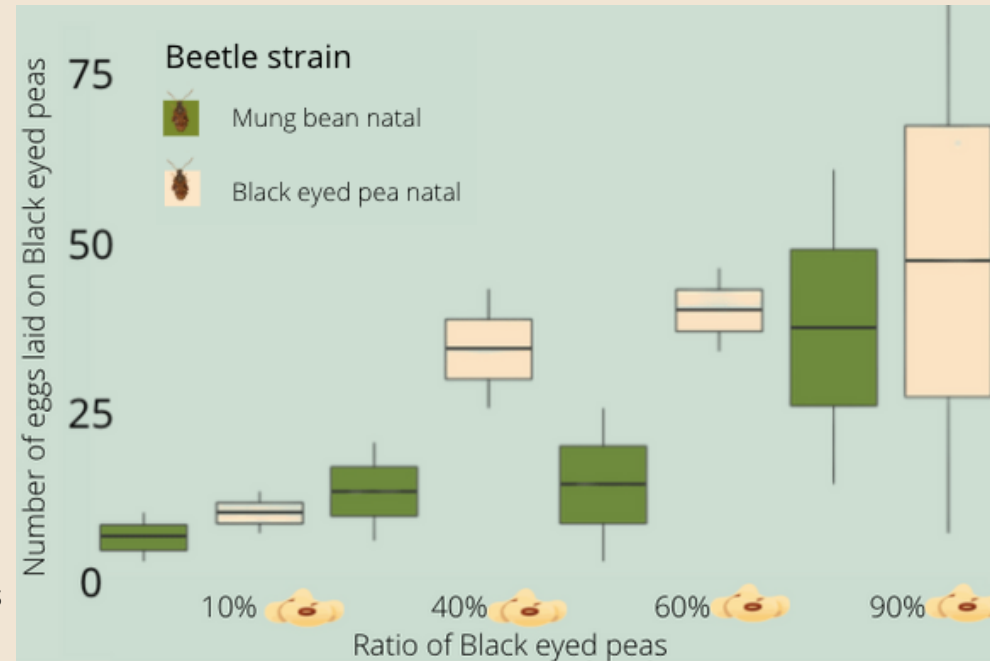
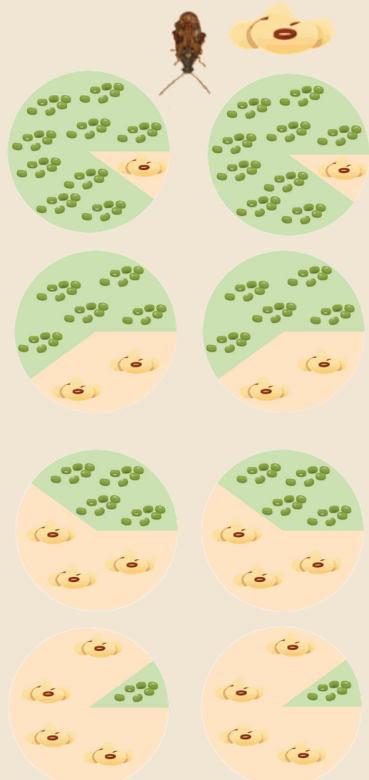
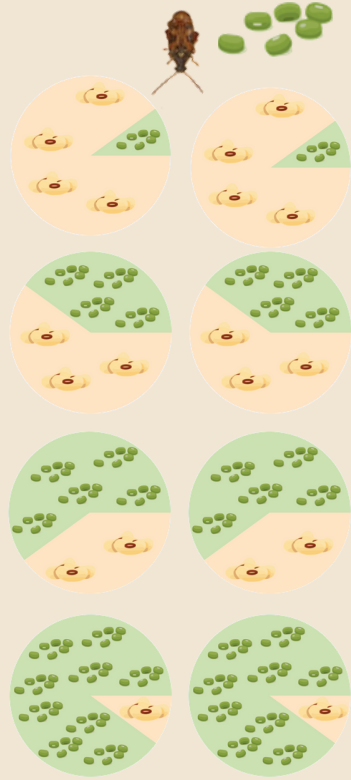


Figure 1: Number of eggs laid on mung beans (green) and black eyed peas beige by beetles natal to the black eyed pea:

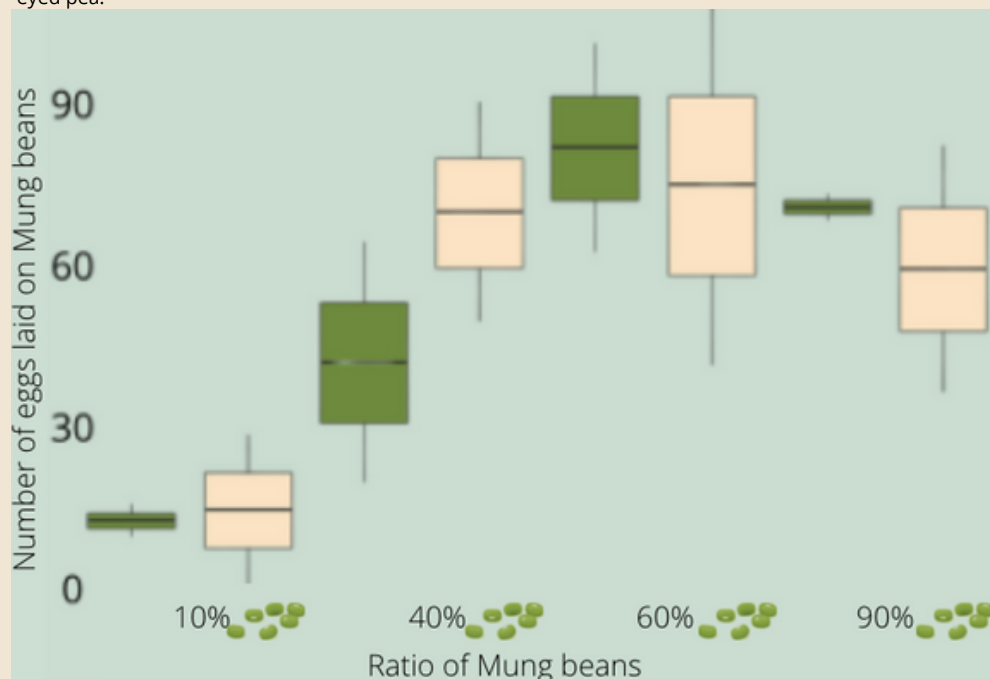


Figure 2: Number of eggs laid on mung beans (green) and black eyed peas beige by beetles natal to mung beans

## 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

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SCAN ME

### References:

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- [2] Mitchell, R. (1975). The Evolution of Oviposition Tactics in the Bean Weevil, *Callosobruchus maculatus* (F.). *Ecology*, 56(3), 696-702. <https://doi.org/10.2307/1935504>
- [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>