Are bean beetles picky? Does the Callosobruchus maculatus distinguish between fresh and used beans in ovipositioning?

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The figure shows that the beetles has a clear preference for the fresh beans.

Poisson model, paired T-test: p-value = 0.0016*, t = 7.64, N = 5



We like 'em fresh!

Beans Fresh Old

Yes, they are picky!

The results shows a clear preferance for fresh beans over used ones, with a mean of over 40 more eggs beeing laid on the fresh ones. It appears that the beetles take into the relative mass of the beans available when they ovipostion.



Two male and four female beetles were put in a petri dish with a seperator, where beans were seperated into two chambers. The beetles were able to travel between the different chambers. One chamber was filled up with beans which already had eggs on them (old), while the other chamber was filled with unused beans (fresh). This was repeated with 5 petri dishes, with 39 old and 39 new beans in each dish. The beetles were then left to their own for two weeks before the eggs on the beans were counted.

References

