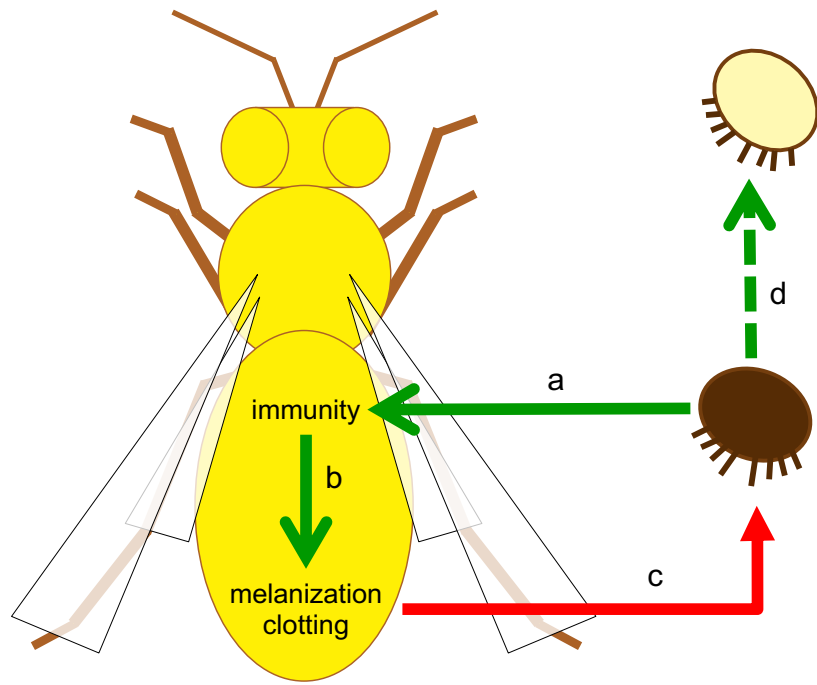
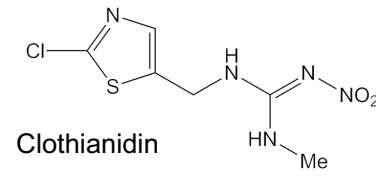
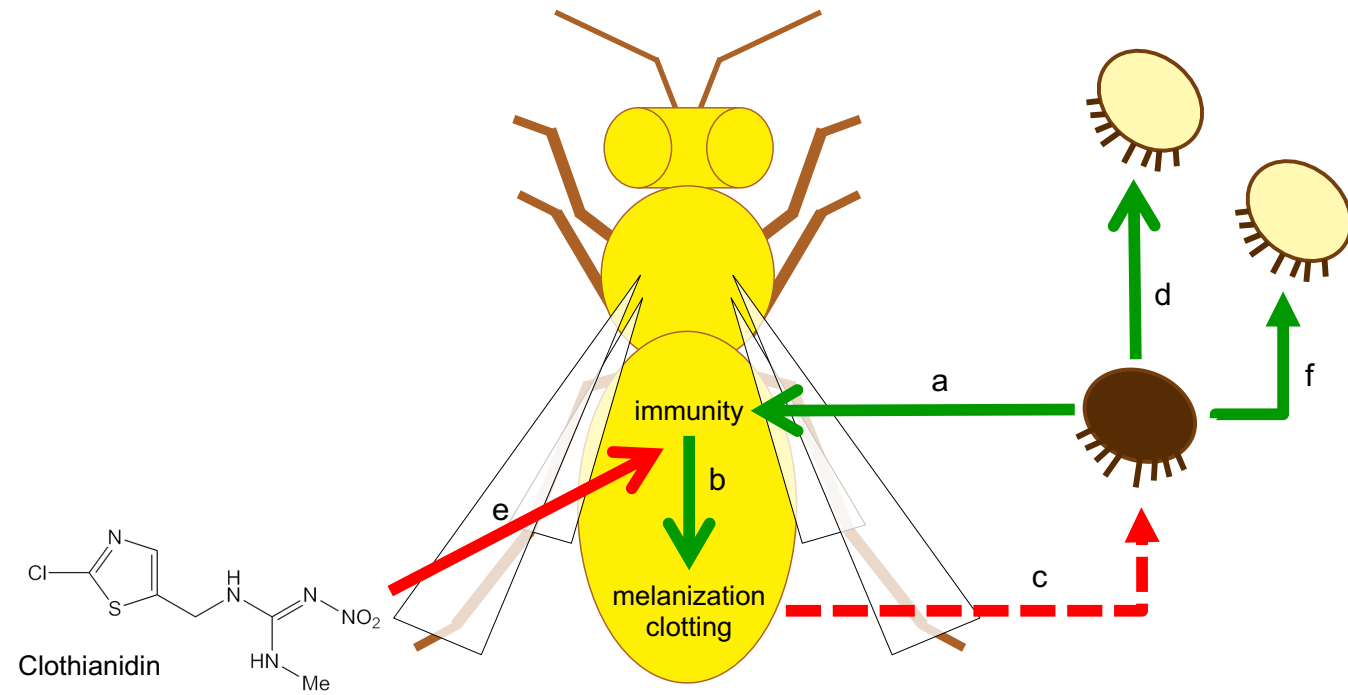


The insecticide Clothianidin increases *Varroa destructor* fertility, with negative implications for honey bee health

WITHOUT CLOTHIANIDIN
(normal *Varroa* reproduction)



WITH CLOTHIANIDIN
(enhanced *Varroa* reproduction)



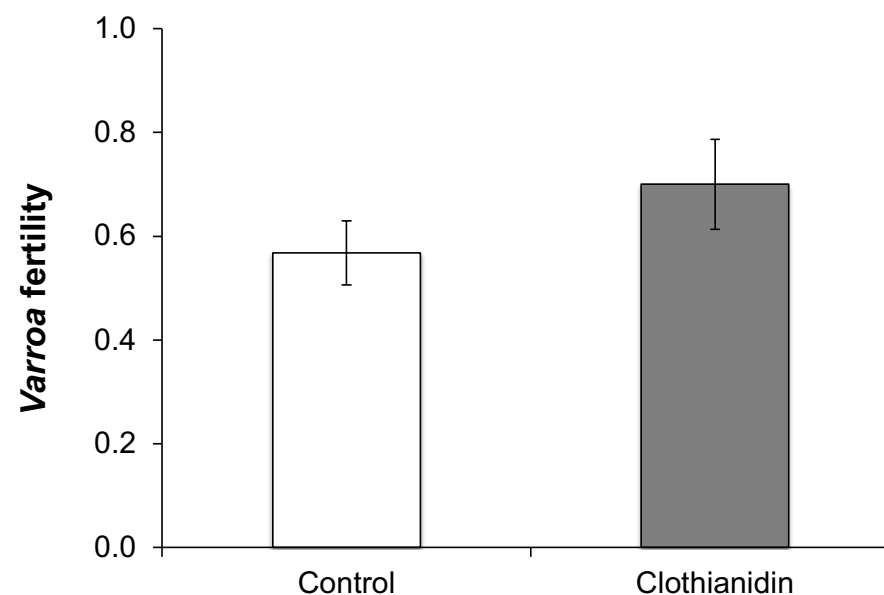
a) *Varroa destructor* feeds on the bee's haemolymph "blood" through a feeding hole.

b) The honeybee immune system reacts by activating two processes: melanization (to encapsulate pathogens, preventing possible infections) and clot formation.

c) This immune response promotes wound healing, limiting mite feeding and reproduction (d).

e) The neonicotinoid Clothianidin impairs immunity and the response to *Varroa* feeding (c).

f) Increased feeding results in enhanced mite reproduction.



Varroa fertility is higher on Clothianidin treated bee pupae. The bars show the average mite fertility in presence of Clothianidin or not, while the error bars illustrate the variability of data.

The difference observed between the two groups is statistically significant.