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Is it advisable to protect glass with latex when harvesting bee venom?

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Commercial apitoxin is obtained by electrostimulation using a current emitter connected to traps consisting of a grid and an attached glass. When the bee comes into contact with the grid, it receives the stimulus, stings and the apitoxin is deposited on the glass. This process can add pollutants; to avoid them, materials have been used that cover the glass and allow the passage of the stinger. Currently, it is common to use latex even though there is no scientific literature to support its use. The objective of this work was to evaluate the quantity of apitoxin obtained and the % of melittin according to the use or not of latex in the glass. Three groups of 20 hives with similar development and genetics were used, from which apitoxin was harvested for 20 minutes with an external trap: A) without protection, B) latex (with talc), C) latex (without talc). The apitoxin obtained was weighed and the melittin quantified by HPLC. A classification model was fitted and an ANOVA test was performed to analyze the amount of apitoxin and the % of melittin, finding significant differences ($p = 1.4x10-14$ and $p = 1.3x10-4$, respectively). The Tukey test determined that the amount of apitoxin in groups A and B is superior to C. For melittin, group A had a higher % than B and C. These results are possibly due to the fact that latex prevents the normal deposit of apitoxin, especially when there is no talc between the glass and the latex. This type of handling increases costs and it is more time consuming, without generating a significant advantage either in the amount of apitoxin or in the % of melittin. Moreover, it can also add pollutants to the apitoxin such as talc or latex particles –a major allergen -, so we understand its use is not recommended.