



# VENOM PRODUCTION



## DISSECTION



The venom sac, roughly the size of a pin head, must be hand extracted from each insect with tweezers.

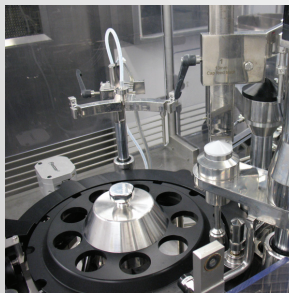
It takes up to 520 staff-hours to extract enough venom for one batch of raw material. In other words we must hand extract venom from up to 130,000 insects for each batch of raw material processed.

To supply the market, we need another full work-shift just for venom extraction and proportionate additions in staff.



## FILLING

As part of our facility upgrade, we are adding a second lyophilizer and a second filler to our venom line. This will provide redundancy in case of equipment failure, ensuring an uninterrupted supply of venom to the market.



## RELEASE

Each batch of venom must pass a minimum of 15 separate quality checks before it is released for shipment. All venom lots must also be submitted to the FDA for approval before release.

**Without factoring the additional labor and facility upgrades mentioned above, venom production - from raw material to release - costs significantly more than other extracts produced by HollisterStier Allergy.**

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## COLLECTION

We have a network of collectors across the country working to provide us with thousands of pounds of raw material (insects) each year.

Since wasps and other vespids cannot be bred, all collection occurs in the wild. Collectors must search for wasp nests and confirm they have found the correct species. Frozen insects are then shipped to our site for venom extraction.

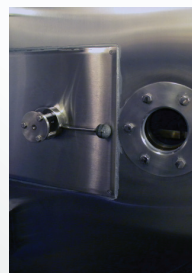


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## PROCESSING



We must significantly increase the number of venom batches manufactured each year to ensure enough supply for the North American market. These additional manufacturing runs place an increased strain on our dated equipment.

To ensure consistent venom supply, we are investing millions of dollars in upgrades to our venom equipment and infrastructure.

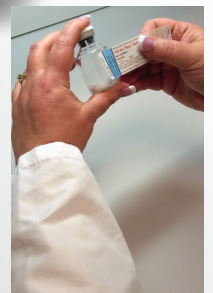
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## FINISHING

Finishing is a manual process that encompasses individual inspection, hand labeling each vial, and hand packaging product in preparation for shipment to the market. We are doubling our finishing staff to support a 150% increase in venom vials produced.



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