



# FENTANYL: How Pollen Analysis Can Help

## Background

Forensic palynology, also known as pollen analysis, is not a widely known or understood field of forensic science. Forensic palynology uses pollen and spores recovered from samples to assist investigators and intelligence personnel in solving criminal and civil legal issues. Customs and Border Protection's Laboratories and Scientific Services Directorate (LSSD) employs two forensic palynologists to determine the geographical origins and to confirm the travels of seized items or encountered persons. Every plant has a unique pollen type and every region of the planet has a unique "pollen print." By analyzing the pollen profiles obtained from a sample, CBP is able to reconstruct the geolocation or travel history of a sample.

## Current Efforts

While CBP continues to sample and analyze a wide variety of items, an effort is underway to conduct the pollen analysis of fentanyl samples to aid in providing a greater understanding of this deadly threat. The information gleaned from these analyses will assist with the development of intelligence and targeting efforts and aid an information-driven, long-term approach that connects the dots between country of origin and narcotics seized and/or drug trafficking organizations.

## Analysis Requirements

In order for CBP to conduct pollen analysis on fentanyl or fentanyl analogues, a minimum of one kilogram of narcotics is needed. **Purity is not a factor.** It is preferred that the narcotics be in their original packaging, but it is not a requirement. During the testing process the sample itself will be destroyed.

## How To Help!

CBP is soliciting local, state, and federal agencies that seize more than one kilogram of fentanyl or its analogues to send the samples to CBP for pollen analysis. To do so, a chain of custody form needs to be included from the agency that seized the narcotics. The seizure can be shipped directly to CBP's Laboratories and Scientific Services Directorate via FedEx, UPS, DHL, or USPS along with the chain of custody form.

Additional testing of fentanyl seizures from the Southwest Border, International Mail Facilities or other seizures would fill critical intelligence gaps that need to be addressed in order to determine if the seizures tested to date are outliers or indicative of a wider trend.

Please contact CBP at [AFIPINFO@cbp.dhs.gov](mailto:AFIPINFO@cbp.dhs.gov) and include your name, agency, and phone number to arrange for delivery of a sample to CBP's Laboratories and Scientific Services Directorate.



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