

Study Finds Improvement in Cannabis Lab Testing Accuracy

The number of tests found to accurately measure pyrethrin and pyrethroid compounds – common insecticides that are part of some states’ mandated third-party marijuana testing regimen – improved from 89% in spring 2019 to an overall average of 94% across all eight data points. “The ability of ATLS (analytical testing laboratories) in the cannabis industry to detect and quantify pesticides has improved over a four-year period,” according to the study.

Authors of the study added that conducting retroactive data analysis could be a useful way to measure labs’ testing accuracy over time.

Practical Testing Applications

The study posits that “enhancement of competency” as the cannabis industry matures has led to labs’ improved ability to accurately test for certain compounds on plant material. “There has been a continual increase in the number of analytical chemists with a doctorate degree moving into the cannabis industry and a continual increase in laboratory directors who have more experience in the analysis of analytes in cannabis and cannabinoid-containing products,” the study noted.

Wes Burk, principal author of the study and managing director at CAPS Journal, added that the study has practical applications in the field of marijuana testing, where “lab shopping” is a recognized problem. “We need operators committed to accuracy in testing, and the labs that demonstrate proficiency should be rewarded with business,” he said. “The practice of shopping for labs that will manipulate results puts our entire industry at risk and ignores our shared mission of improving the health of all people.”

Cannabis Testing Standards Needed

While the study showed progress over time, Jeff Keller, CAPS Journal’s founder and editor in chief, said “there still remains considerable variability in the ability of cannabis testing labs to detect and quantify some pesticides.” To correct the problem, Keller said the industry must implement standardized methodologies and widespread proficiency testing, where labs examine their accuracy by comparing their results against known amounts of analytes, or specific chemicals.

“The lack of standardization of the methods to detect pesticides and other contaminants remains for analytical testing labs in the cannabis space,” Keller expressed. “The lack of standardization is particularly for some of the more difficult pesticides examined in the current study.”

CAPS Journal Seeks Editorial Board, Research Papers

Keller, a professor and director of the Institute for Dementia Research and Prevention at Pennington Biomedical Research Center in Baton Rouge, Louisiana, is building an editorial board for the CAPS Journal.

He has published more than 200 peer-reviewed publications on science, clinical research, and drug development. Scientists, clinicians, and industry policy experts are encouraged to apply, along with cannabis producers, manufacturers, and formulators.

“We will always need scientists and non-scientists who are content experts in the peer-review process,” Keller said. “The authors of the paper are not made available to the reviewers so that the review can occur with minimal bias.”

Keller also is principal investigator of the Pennington site for the LiBBY clinical trial – a multisite National Institutes of Health-funded CBD/THC clinical trial for the treatment of agitation in hospice-eligible dementia patients. LiBBY is shorthand for Life’s end Benefits of cannaBidiol (CBD) and tetraHdrocannabinol (THC).

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