

## 297-Mg. Shot of LSD Kills Bull Elephant

### Shaken With Seizure, Dies in Short Time

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OKLAHOMA CITY—A young Indian bull elephant, subject of psychiatric research here, was shaken with a gigantic seizure and died an hour and 40 minutes after an injection of 297 mg. of lysergic acid diethylamide.

It was approximately half the dose per body weight unit given cats intravenously without irreversible effects, investigators said.

"We were very dubious that we would see any reaction at all," said Dr. L. J. West, head of the Department of Psychiatry at the University of Oklahoma Medical Center. "But we discovered the nervous system of the elephant is fantastically sensitive to the same drug to which man shows a fantastic sensitivity and that it is markedly different from other animals."

The LSD experiment at Oklahoma City's Lincoln Park Zoo was to help define the nature of the periods of natural occurring frenzy—the state of "going on must"—that male elephants experience once or twice a year after reaching sexual maturity.

The drug, approximately 100 micrograms per Kg. of the estimated body weight of 7,000 pounds, was delivered by means of a syringe fired from an air gun aimed at the animal's rump from a range of 25 feet.

Within three minutes, the beast's knees buckled and it "went into the most peculiar state of excitation of the nervous system—a thunderstorm of spasms," Dr. West reported. On gross examination at autopsy, the pathologist attributed death to anoxia resulting from throat spasm.

Lincoln Park Zoo obtained the elephant in March for joint studies by psychiatrists



Down and out, a 7,000-pound male elephant is inspected by scientists at the Oklahoma City Zoo after it unexpectedly died following injection of experimental dose of LSD.

and Warren Thomas, D.V.M., zoo director.

Dr. West believes there is a significant similarity between the elephant and human brain that makes the animal a promising research subject.

Two or three days before the elephant goes on must, a brown sticky fluid of undetermined composition is secreted by a temporal gland.

"It has been suggested that this madness is an intoxication and that the animal intoxicates itself," Dr. West said. "We

wanted to try to produce such an intoxication with the drug known to cause artificial insanity in humans and other animals and we also wanted to know whether LSD would cause the gland to secrete."

No secretion was apparent, and the gland was dissected out for microscopic examination.

It was not known whether Tusko, thought to be about ten years old, had ever been on must, but handlers speculated he had undergone one brief episode or was nearing his first.