



**CALIFORNIA STATE SCIENCE FAIR
2012 PROJECT SUMMARY**

Name(s) Titus M. Patton	Project Number J1021
Project Title Poop Power	
Abstract Objectives/Goals Determine if a homemade digester can produce a gas from common pet waste, and if that gas would burn as methane. Methods/Materials Three homemade digesters were made from a one gallon bucket and two five gallon buckets; then connected with tubing and sealed with silicone. The gas production was measured by the displacement of the buckets, and a bunsen burner was used to try to burn the gas. Results The digester filled with goat waste produced the most gas and longest burns. While the digester filled with cat waste produced the lowest amount of gas and did not burn. Conclusions/Discussion I concluded that it is possible to produce methane, but the temperature and the type of waste used effects the production of gas. I found goat waste contained a lot more biomass, making it ideal to produce methane.	
Summary Statement If goat, dog, and cat waste are put in separate homemade digesters, then they will produce a measurable and burnable gas.	
Help Received Father and grandfather helped with the supervision and used power tools to make the homemade digesters. Nathan Whittington, Sanger High School Science teacher, advised and provided Bunsen burner.	