



**CALIFORNIA STATE SCIENCE FAIR  
2008 PROJECT SUMMARY**

<b>Name(s)</b> <b>Alexandra L. Venable</b>	<b>Project Number</b> <b>J1437</b>
<b>Project Title</b> <b>Equine White Line Disease</b>	
<b>Abstract</b>	
<b>Objectives/Goals</b> My goal was to grow White Line Disease, see what conditions it grows in, and test which remedy works.	
<b>Methods/Materials</b> Petri Dish, Thrush Buster, Thrush Remedy, Formaldehyde Iodine, Sabouraud agar, Non-Nutrient agar, Nutrient agar, Loop, Horses, Hoof pick, Light/Dark (cover), Two cookie trays, Used Motor Oil.	
<b>Results</b> Nutrient agars were the first to grow. The Non-Nutrient agar grew nothing initially. Sabouraud agar had microbes growing later. Day two the Nutrient agars in the dark had White Line Disease growth. I took a sample and swiped Nutrient agar plates which grew quickly. The fungus grew on moist Nutrient agars in the dark. I used three different remedies on White Line Disease growth. Thrush Remedy did nothing, Thrush Buster killed a little and the Formaldehyde/Iodine did not do anything unless a lot was used directly on the fungus. Thrush buster worked best. Formaldehyde/Iodine worked well on direct application only. The fungus grew over the Thrush Remedy and the Formaldehyde/Iodine test spots. My tests showed the Formaldehyde/Iodine killed White Line Disease only where it covered the fungus. The Thrush Buster killed White Line Disease and it spread out over time and continued to kill more fungus. Thrush Buster continued to be the best remedy and the Thrush Remedy was the worse. I did more tests using Used Motor Oil, Thrush Buster and Formaldehyde/Iodine. With the small amounts I used the Formaldehyde/Iodine seemed to not kill anything. The effect of the Used Motor Oil was hard to determine. The Thrush Buster killed the fungus and spread out to kill the most White Line Disease.	
<b>Conclusions/Discussion</b> The first part of my hypothesis was successful. I was able to get a sample of White Line Disease from the horse's hoof and grow it on an agar. The second part of my hypothesis, that Formaldehyde/Iodine would treat White Line Disease best, was incorrect. The Thrush Buster killed White Line disease where it was applied and continued to spread and kill more fungus over time. The Formaldehyde/Iodine killed White Line Disease only where it was applied directly. Thrush Remedy did not seem to affect the Fungus. The fungus has not grown back over the Thrush Buster as it did the other remedies. The Thrush Buster was the best treatment for White Line Disease. A source of error in my project was obtaining a sample of White Line Disease from a hoof with a large infection.	
<b>Summary Statement</b> My project is about growing and treating equine White Line Disease.	
<b>Help Received</b> Mother helped collect samples and edit report; farriers gave demonstrations and shared knowledge	