# The Reduction of Tumors on Glycine max Through the Application of Sulforapahane

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The purpose of this experiment is to test the effects of Sulforaphane on tumor growth in Glycine max. If Sulforaphane suppresses tumor growth in the plant, then Sulforaphane is a potential tumor suppressor in Glycine max. I conducted this experiment because I wanted to see if Sulforaphane had a big enough impact on tumor growth to be beneficial in finding a potential cure for cancer in Glycine max. Six different tests were conducted using the 10% and 20% Sulforaphane solutions including two control tests. These trials were; 10% Sulforaphane solution given to the plant at the same time the Agrobacterium Tumefaciens was, 10% Sulforaphane solution given to the plant one week after it was given the Agrobacterium Tumefaciens, 20% Sulforaphane solution given to the plant at the same time the Agrobacterium Tumefasciens, and 20% Sulforaphane solution given to the plant one week after the Agrobacterium Tumefaciens. During the time the plants were growing I conducted another experiment by growing Agrobacterium Tumefaciens on an Agar plate and tested to see if the 10% and 20% Sulforaphane solutions would cause rings of inhibition on the plate. My results for both experiments supported my hypothesis. The Sulforaphane suppressed tumor growth in Glycine max, and caused rings of inhibition in the bacteria on the agar plate. In conclusion, Sulforaphane does suppress tumor growth in Glycine max, and could be a potential tumor suppressor in other species of plants or animals.

**Awards Won:**