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| (continued)  Not only is the United States researching allelopathy, but research is also taking place through out the world. People want to explore the unique benefits to allelopathic characteristics. Some scientists, like Dr. Gilbert, believe the more we study allelopathy, the more benefits it may have to the human race, such as helping to improve gardens and agriculture.  Although the study of allelopathy has become more common just recently, the idea has been around for quite some time. The effects of allelopathy was first studies and discovered by a Japanese philosopher of Confucianism Kumazawa Banzan. "He described in his book �Dewdrops from red pine are harmful against crop and weed under the tree� about 300-years ago.Ü"  Figure 1.2  The Japanese philosopher proved to the government that if they planted red pines as a wood source through out the land, they would be killing the native plants and scrubs around them. He also proved that if they were to plant the red pines it would decreasing the water supply in the soil, because of the trees major desire for water.  After the government experimented with the idea they found the philosopher to be correct. The pines killed all seedlings and living plants around it.  Many other governments began to wonder if they could be planting "killers." So many officials from countries all over the world called on their scientists to find other plants that might contribute to killing of other plants.  After several centuries the idea of allelopathy faded, but never forgotten. The idea was said to be resparked, in the United States, during the dust bowl in the 1920�s. Scientists started studying areas that dealt with agriculture and came across allelopathy.  For my research project I will use the research of many scientists and test the effects of allelopathy, by placing Eucalyptus leaves in the water supply of rye grass. If there is allelopathic properties in Eucalyptus leaves I may see results in the growth of rye grass seedslings  Figure 1.3  **The History of Eucalyptus**  Eucalyptuses are evergreen trees and are native to Tasmania and Australia. These trees were brought to the United States over a hundred years ago by explorers because they were known to be pest resistant and have a profound odor.  Eucalyptus leaves are also known to be mildly allelopathic. Kam Watson a professor of the Environmental Sciences Program - College of Natural Resources at University of California, Berkeleyâ has experimented with.  extracts of *Eucalyptus globulus* and investigated its effects on germination and seedling growth of *Achillea millefolium, Bromus carinatus*, and *Elymus glaucus*(common household garden plants, shown in figure 1.3). Watson stated that the percentage of *Achillea* seeds germinatedwas significantly less in the *Eucalyptus* treatment than in the control. Achillea are also known to be hardy plants that can survive in depleted nutrient areas.  Watson believes these plants are allelopathic and help to keep weeds away from their trunks through chemicals found in its leaves.  **History of Rye Grass**  *L. Perenne* also known as Rye Grass is apart of the grass family and was brought to America from Europe and is now grown all over the country. It is known to be very "hardy" and can with stand water depletion for a lengthened amount of time. Rye grass can strive in any range of light conditions and can grow up to two feet tall. It can be grown at any time of the year. Rye grass is also known to take over a yard if it is not cut and maintained well.  **Method of Experimentation**  I will be studying the effects of Eucalyptus on rye grass by placing different concentrations of Eucalyptus leaves in a petri-dishe with rye grass seeds.  I chose Eucalyptus to test with because it is seen all over our creek in Pleasanton. It would be good to know whether these massive trees can kill little seedlings and keep other plants from growing around it down at the creek. In some areas around the creek there is not a sign of life under the trees, yet in other places there are little seedlings around it. I will be able to see if those little seedlings will be there very much longer by using the leaves. I decided to use rye grass because it can be grown at any time of the year and since I will be starting this project in January this will be very helpful.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Ü Yoshiharu FUJII-Chairman of the Organizing Committee, "Allelopathy" Japan  á "Japan Terrestrial" Courtesy of Division of Vegetation Science, http://www.niaes.affrc.go.html  â Watson, Kim "The Effect of *Eucalyptus* on California Native Plants" University of California Berkley, February, 1998  à Courtesy of Botany.com    ([Intro1](http://docs.google.com/introduction.html))([Intro2](http://docs.google.com/intro2.html))  [[Home](http://docs.google.com/home.html)][[Introduction](http://docs.google.com/introduction.html)][[Hypothesis](http://docs.google.com/hypothesis.html)][[Procedure](http://docs.google.com/procedure.html)][[Data](http://docs.google.com/data.html)][[Conclusions](http://docs.google.com/conclusions.html)][[Bilio/Links](http://docs.google.com/biblio.html)]  [[2002 Projects](http://docs.google.com/AP2002/index.html)][[2001 Projects](http://docs.google.com/index.html)][[2000 Projects](http://docs.google.com/AP2000/index.html)][[1999 Projects](http://docs.google.com/AP99/index.html)][[1998 Projects](http://docs.google.com/AP98/index.html)] |