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*Isolation of Naturally Occurring Algae for Biofuel Production*

The purpose of this project was to isolate locally grown algae that would have strong biofuel properties. These algae samples were tested for properties that are important in developing an economic method of oil for biofuel production. In this experiment four different strains of algae from Southeastern Colorado were grown. The samples that were collected were from the Apishapa River, Highline Canal, Manzanola Lagoon and a local fishing pond. After a few weeks, when the algae had grown to a significant size it was determined which strain to use as the experiment could continue. The ditch water from the Highline Canal had enough properties to continue with the experiment. The other samples did not grow enough algae and were discarded. The procedure was conducted to determine which of the four strains of algae was best for producing the most oil at the cheapest cost. The conclusion of the experiment was that it was possible to isolate algae out of the local environment and develop growth tests that would prove that the algae was able to produce lipids that would be a viable option to produce biofuel.