HS Explanatory: Sunflower Power

Task Prompt: Write an explanatory essay about sunflowers. Using more than one source, craft a thesis to explain the ways in which sunflower seeds can be used to create biofuel and the economic implications of this process.

Sunny Bio-Fuel

As innovations of this day and age continue to delve into the once thought impossible category of accomplishments, people are in constant wonder at what we, as a human race, will discover next. Though man has taken insurmountable strides as far as easing lives and bettering conditions for human beings throughout the world, some of these discoveries have opened a door to environmental damage and codependency on resources that will one day run out. One of these resources, among several others, is gas and diesel used for machinery, vehicles, and various other everyday amenities. In America alone at least one household owns a vehicle of some kind, not to mention the plethora of farms and crop plantations that rely heavily on large machinery to harvest and tend to its agriculture and varying large city transportation systems and cars, with the exception of hybrid vehicles, that use hundreds of gallons of fuel a day. This is only to brush the surface of the reliance our country, our world, has placed on a resource that is not guaranteed forever. The question now is what will replace fuel once it is gone, and how can the human race do everything possible to make sure this new alternative does not destroy the delicate balance in which the environment, and the life within it, hangs. In the pursuit of answers to this question, the Bio-fuel Acts and Department of Agriculture have sequestered a source worthy of consideration for a bio-fuel: sunflowers (Source #1).

One may ask, “how is a flower going to fuel our cars and airplanes?” This can be answered with one word, innovation. Various research institutions have been honing in on finding and studying cost effective and “green” energy sources, generally produced from agricultural crops and organic matter, to produce the next effective bio-fuel (Source #1). Sunflowers and the oil from their seeds have a very likely potential to be a bio-source for substances like ethanol (Source #1). Several agriculturalists are beginning to implement sunflower fields into their farms as a product of higher income and in the hopes that they can contribute their share to renewable energy (Source #3). The process in which sunflowers could be used as a bio-fuel is rather simple. In short, bio-diesel plants would be built that would have the ability to harvest oil from the sunflower seeds and convert that oil into bio-diesel.

Besides the fact that sunflowers would be renewable, they are in the running for the next bio-fuel for their eco-friendliness as well. The waste products of the sunflower and sunflower seeds, sunflower hulls and small leftover plant material, are the very elements that could be transformed into a useful fuel by “machines that would grind up this biomass and press it into little fuel pellets and the pellets would then be fed into a special gasifier chamber,” (Source #3). With every ingredient in this renewable recipe being natural, emissions given off by cars when running on this bio-fuel would not

damage the atmosphere and destroy the o-zone that protects life on earth from harmful sun rays. With its power providing capabilities, sunflowers could also supply its very own conversion plants with up to one third the power it needs to make oil harbored into fuel (Source #3). Not only this, but if sunflowers were to be the next chapter in human innovation, much needed jobs would become available to people across the globe. In recent years it has been evident that unemployment rates have been rising at an alarming rate. Solutions and job opportunities have been at the forefront of important discussion in America alone for several years now, and it is time to take action.

Creating fuel from sunflowers would be the equivalent of hitting two birds with one stone, per say. Not only would the world be gaining an efficient and affordable alternative to diesel and gas today, as well as an environmental-friendly bio-diesel, but it would also reap the benefits of having hundreds if not thousands of optimal job opportunities. As fast as society is moving in the twenty-first century, it is time to take the next step in protecting the environment in which all life known is sustained and creating a renewable energy source as soon as possible to relieve the dependency the human species has acquired for fuel. In all, the facts speak for themselves, indicating a time of change is needed and that sunflowers just may be the catalyst to do the job.