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For hundreds of years, the question of how we as humans impacted the earth was never at the forefront of our concerns. But with recent developments in technology and upgrades in the luxury of living, there has come a price. It is now that the cost of the human footprint on the planet is suddenly screaming out for attention. It must be considered. And not only that, it must also be dealt with. The advent of biodiesel has presented an astonishing number of opportunities for this idea to become action. The benefits are so numerous and they can be seen clearly right here in Minnesota. Biodiesel offers not only environmental benefits, but also economic and social benefits.

Starting with perhaps the clearest and most pronounced benefit area of biodiesel, environmental benefits, it is clear to see that it's an excellent alternative fuel that should be highly considered. One of the greatest contributors to the problem of excess greenhouse gases being produced is the use of fossil fuels. Biodiesel offers an outstanding alternative to these non-renewable resources. For every unit of energy used to produce biodiesel, 4.5 units are produced. This fact shows the efficiency with which this can be produced. And that's only the production process. Biodiesel allows cars to run with greater efficiency and the environmental impacts are so much less drastic. Relative to petroleum, biodiesel creates nearly an eighty percent reduction in carbon emissions. More simply put, it greatly reduces pollution, the ultimate environmentalist argument. The use of biodiesel also helps to reduce the level of soil erosion and increase the overall water equality, particularly when used in the practice of farm machinery. It's a beautiful cycle once it gets off the ground. The soybeans are grown and harvested, then made

into biodiesel, which in the process creates a substance called glycerin which has a number of benefits in the agricultural realm, and then that biodiesel can be used in the farm machinery that harvests the soybeans.

When biodiesel is created, a side product that is created along with it is glycerin, which can then be refined and used in many products. One such example is feed supplements for animals being raised for food supply. This is much healthier than corn based feed and makes for a much better and higher quality final product for the consumer. Speaking of the consumer, they together as a whole, have the say in what is produced.

Economics is all about the allocation of resources so that it will benefit the consumer (the people) to the greatest degree. The economic benefits of biodiesel are ones that the consumer is directly impacted by financially, socially, health wise, and so on. Biodiesel has increased the Gross Domestic Product in recent years and continues to increase it yearly. The U.S.'s trade deficit has been slightly reduced in the area of fuel and has the potential to drastically decrease this deficit even more as a result of the decreased dependence on foreign imported oil. It could save billions of valuable dollars on farm subsidies. It could create new investments, which would stimulate consumer spending which would then create many new jobs in this growing industry. It would also benefit rural economies because of the increased importance agriculture would have in Minnesota and even the broader United States. These improved rural economies would stabilize the entire economy, as it would create a stronger and more secure financial system. Along with the improved financial system, come social benefits.

Biodiesel is a cheaper fuel source than the fossil fuels that we are so dependent on now. The products to produce it can be grown in large quantities right here in Minnesota, which would greatly cut down on transportation costs. The decreased dependence on these foreign products would give us an increased energy security. With greater security, we as Minnesotans would be encouraged to rely more heavily on our local community, which would be a positive benefit. A stronger community increases social relations and in turn benefits society. The transition from petroleum-based products to biodiesel wouldn't even be a problem as it already works in current diesel engines. In fact, it even reduces the wear and tear on engines and since it is a mild solvent, it acts as a cleaner for the fuel system. This is a huge incentive to switch to biodiesel because as it would be no problem for the large majority of the population.

Biodiesel is clearly a beneficial alternative fuel that benefits Minnesotans directly and indirectly. It offers environmental benefits in that it cuts down greenhouse gases and carbon emissions, it's a more efficient energy source than petroleum, and it helps to reduce soil erosion and increase water quality. It even allows for the production of healthier and higher quality products. It offers economic benefits in that it creates new jobs, inspires new investments and can save on farm subsidies and decrease the trade deficit. It also benefits rural economies, which is the base of the entire state and national economy. Lastly, it offers social benefits in that it would decrease our dependency on foreign petroleum products, which would create a stronger more stable social network in our own state. Money would be saved from the consumer's pocket, which would create a more flexible

social environment. As can be seen, biodiesel presents itself as an exceedingly beneficial product that is working its way to the front of the public eye. We are now forced to analyze our options to create a better and cleaner world. Unarguably, biodiesel needs to be a first step in this long process.