

Mason Doody, Jewel Lester, Andre Nguyen, Keila Espinal
PLCY 380
Proposal
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SECTION 1: THE ACTUAL PROPOSAL

Project Title:

Educating Farmers on Modern Day farming practices.

Submitted To

Local Farmers, University of Maryland CP Department of Agricultural and University of Maryland CP Department of Animal and Avian Sciences.

Abstract

Over the 15-week semester our team plans to educate local farmers (farmers in Prince George's County and surrounding Counties) on topics about the most modern practices, equipment, finances and legislation to increase sustainable farming and create a healthier environment.

Need

Current farming practices are increasing harm to our environment, animals, and fellow human beings.

The harmful pollution current agriculture causes also has major effects on humans. Pesticides, fertilizers, and other toxins poison things like fresh water, marine ecosystem, air, and soil (World Wildlife Fund, 2022). As more pollution occurs the harder it is for people to have access to clean drinking water, air, and soil which is needed to live a healthy and sustainable life. Farming also massively contributes to poverty around the world. Though it is a livelihood many poor people only have access to; subsidies that are provided by the U.S. and European governments to their agriculturists incentivize overproducing. This then causes a decline in prices making farmers have to cut corners environmentally to keep up with the increasing demand the economy is forcing; producing a constant cycle of poverty and biodiversity loss (World Wildlife Fund, 2022).

In the U.S in particular, according to the organization Science Line “we continue to lose hundreds of millions of tons of agricultural soil to erosion annually; ten times that of natural soil replenishment”. Along with that, since the 1960s, the amount of nitrogen fertilizer used per acre of corn across the U.S has almost tripled (Leffer, 2021). Both of these impractical farming practices continue to contribute to the destruction of water and soil health.

In our solutions interventions research we thought that there were three main areas that could help deter the damage occurring from current farming practices. These three are providing education, providing equipment, and providing legislation awareness. Providing education would allow farmers to receive the most up to date information for farming both financially and in-practice. Providing equipment would equip farmers with modern farming equipment in order for them to produce healthier and less polluted soil while also maintaining a healthy crop yield. Lastly, providing legislation awareness would be providing farmers with knowledge on the most

up to date legislation that is affecting them and their ability to conduct sustainable farming practices.

Though things like providing equipment and legislation awareness can be effective to some extent, they do not dig deep into the root of the issue, which are the barriers that are present between low-income farmers and the knowledge needed to participate in sustainable and productive farming practices. According to the Cambridge University Press's Renewable Agriculture and Food Systems journal "barriers related to the supply of information are: rapidly evolving knowledge and information needs, lack of available information for farmers, and change agents' lack of available knowledge" (Rodriguez, et. al. , 2008). During this 15-week semester we will focus on meeting this need by bridging the gap between the supply of information and the local farmers who are in want of learning and implementing sustainable agriculture into their everyday practices.

Proposal

Our proposed initiative is eliminating some of the barriers that farmers might come across when trying to receive the most up to date information about sustainable agriculture practices and their implementation. Our first step would be to gain credibility in order to persuade the farmers that we will be reaching out to that we have a background knowledge on sustainable agriculture. A way we will do this is by partnering with the University of Maryland Department of Agricultural and University of Maryland Department of Animal and Avian Sciences. These departments focus on researching and developing expert solutions to problems we face within agriculture and farming and with that knowledge they implement them in the University of Maryland farm. During our partnership with these two departments we will learn about the troubles many farmers run into with plant and animal agriculture and the expert solutions both departments have studied. After this, we will create a list of local farms in Prince Georges and surrounding counties (Charles, Calvert, etc.) and draft and revise outreach letters introducing ourselves, and explaining our mission which is to create more sustainable farming practices within America. Our goal is to reach out to three farmers/farms and educate them on the updated and evolving practices used to create a healthier yield and a greener planet. At the end of the letter we will leave our contact information with instructions on how to reach out to us if they would like to take part in the educational period of our outreach program. These letters would then be sent out in the mail and through email for these local farmers to read and respond to.

If the letter via mailbox or email fails to get three farmers to reach out, that is when the planning stage of going to the farms in person and knocking on their doors starts. Before we do this we have to set up a mode for transportation. Through the University of Maryland there is a Reserve Vehicle Motor Transportation Service where you can rent vehicles for UMD business travel (UMD Procurement and Business services, 2022). We will use this to rent a vehicle and go out the local farms that we did not hear back from and we will provide a small pitch on who we are/ who we are partnering with, what our intentions are, asking them what they need the most help with (their struggles and troubles in farming), and how we can work with them.

After generating three farms to work with in the next weeks will dive deeper into figuring out problems that they face with farming. With this, we will then use our partnerships with the University of Maryland Department of Agricultural and University of Maryland Department of Animal and Avian Sciences and come up with lessons that are tailored to the problems these

farmers are facing. During this time we will also schedule times with experts (graduate students or professors) from the UMD Department of Agricultural and UMD Department of Animal and Avian Sciences where they can come along with us to these farms and give their expertise on the areas that these farmers are most in need of. After creating the schedules that work for both the farms and experts, we will then go out to these farms during their scheduled times and do the lesson plans we plan. This is where farmers can come in contact with face-to-face help in order to assist them in believing that adopting sustainable agriculture practices is not far from reach but accessible.

After the educational period we will visit the three farms and gain feedback on things the farmers like and dislike about the educational period. This will also be a time to figure out how many farmers are using the techniques in their everyday farming after the educational period and how many farmers have either implemented the new farming equipment that we have mentioned or reached out to organizations that will help them financially to be able to afford the equipment.

Purpose/Goals

- Partner with UMD farming and agriculture department
- Reach out and educate three local farms about equipment, soil, and legislation.

Stakeholders and Partners

- ❖ Local Farmers
 - Farmers within Maryland
 - Provide local communities with meat and produce
 - Their farming methods need to be updated as necessary
 - More educational resources/access will be provided as necessary
 - Plan to reach out to assess current farming methods of Maryland farmers
- ❖ UMD Farm and Agriculture Department
 - Institution of University of Maryland that educates students on proper agricultural practices
 - Can provide educational resources
 - Will assist the credibility of the cause
 - Vast network in agricultural world
- ❖ Students of PLCY380
 - Will reach out to farmers of Prince George's County and neighboring counties
 - Organize and execute proposal
 - Provide manpower for farmer outreach
 - Ensure the proper education and training of students in order to effectively communicate and work with local farmers

Viability

We believe our specific plan will be successful. This proposal will influence and educate farmers to improve farming techniques and impact legislation. We considered the best way to assist this community in the space of fifteen weeks, and we decided to concentrate on issues

related to the most advanced techniques, tools, resources, and financial policies that would improve sustainable farming and foster a healthier environment. To provide farmers the chance to determine the best course of action for preserving their property and rights, we decided to work with the UMD Agriculture Department and prepare outreach letters. Reaching out to nearby farms is an approach that manages to be an efficient strategy for us since we wanted to contact as many farmers, organizations, and people as we could.

The University of Maryland Department of Agriculture will potentially agree to collaborate with our solution as it is currently taking beneficial steps to reach out and provide education to nearby farms with information on technology, the environment, and laws. Their collaboration with the UMD College of Agriculture & Natural Resources, UMD Francis King Carey School of Law, and UMD Eastern Shore have an approach to educating individuals, policy-makers, and farmers on The Agriculture Law Education Initiative (ALEI). This enterprise reaches out to sponsors like the United States Department of Agriculture, Maryland Farm Bureau, Rural Maryland Council, and more associates to expand research on farming practices to sustainability. (Agriculture Law Education Initiative, 2021). Their approach provides information about land and resource systems, standard and everyday learning by improving learning tools to maintain and enhance Maryland's local farmers. Supplies funding to help us understand agricultural law as it changes to keep evolving realities of landowners and the farming industry, and resources to inspire technology in farming, nutrition, policymaking, and public outreach. Additionally, it offers Maryland farmers information and tools on food safety responsibility of agricultural and handling practices. (Agriculture Law Education Initiative, 2021).

Ultimately, we wanted to find a practice that is attainable and accessible for all farmers today who found a way to farm several years earlier and are happy with their current system and routine. The matter is that more productive and efficient farming inventions by livestock farming technologies and farming automation productions are without the embrace of traditional farmers.

Impact and Evaluation:

❖ Outputs

- # of farms that reach out vial email / phone call / face-to-face
- # of visits and time spent with the farmers

❖ Outcomes

- farmers that utilize our modern education / advice after a certain amount of time AFTER our assistance
- farmers that use the more modern equipment in replacement of their 'old school' / traditional tools AFTER our assistance

Timeline

Date	Syllabus
Week 1-5: Reaching out period	Week 1: Reach out to the UMD Department of Agricultural and UMD Department of Animal and Avian Sciences and brainstorm possible contents that would be helpful to put

	in the outreach letter and partner with specific professors Week 2-3: Create a draft for the letters that would be sent to local farmers and create a list of farmers that would be good candidates for outreach. (These farmers are preferably farmers in Prince George's County and surrounding counties, with smaller land, lower income, and are older) Week 4: Send out these outreach letters to the respective farmers and wait for a response Week 5: For the farmers who do reach out we set up appointments to travel to the areas using the UMD Reserve a Vehicle Motor Transportation Services. *If we are under our goal of getting three farms to work with us, we will decide to set up a time to travel to other farms who have not reached out to us and pitch them our idea of creating greener and more sustainable farms by educating them about new equipment, soil techniques, and legislation.*
Week 6-10: Educational period	Week 6-7: During these weeks we will travel to these three farms using the UMD Reserve a Vehicle Motor Transportation Services and ask them about the troubles and problems they are facing to produce a good yield or keep their livestock healthy while also remaining sustainable. We then will develop lesson plans according to their specific needs and set up a schedule for the next two weeks with experts (graduate students or professors) from the UMD Department of Agricultural and UMD Department of Animal and Avian Sciences where they can come along with us to these farms and give their expertise on the areas that these farmers are most in need. Week 8-10: In these weeks will be working on giving these lessons to the farmers along with the experts that fit their needs. This will include education on the best soil techniques to prevent livestock contamination and improve crop growth, the best equipment to help properly till soil in a sustainable way (this also includes leading them to resources

	that will help fund them getting this equipment), and ways to get involved in legislation that directly affects their farming rights.
Week 11-15: Evaluation period	These weeks will be focused on the evaluation period. During this time we will visit on weeks 13 and 15 to gain feedback on things the farmers like and dislike about our educational period. This will also be a time to figure out how many farmers are using the techniques in their everyday farming after the educational period and how many farmers have either implemented the new farming equipment that we have mentioned or reached out to organizations that we have mentioned that will help them financially to be able to afford the equipment and train them on the usage of the equipment. We will do this evaluation on week 13 and 15 by creating a survey on their experience with our educational portion.

Required Resources

The outreach portion of this proposal will require one van for transportation to the three farms we will be educating. As mentioned earlier we will rent a van through the UMD Reserve a Vehicle Motor Transportation Services and this is where our group and other needed faculty from the UMD Department of Agricultural and UMD Department of Animal and Avian Sciences can travel to the farms. We will gain the money for renting the van and gas by saving up throughout the winter semester from our personal jobs and creating bake sales and other fundraising opportunities to crowd fund for our needed transportation services.

For the education portion we will use resources like google slides, paper handouts, and white boards, and dry erase markers. We will also use the money fundraised from the previous semester to buy these resources. These may be beneficial in visualizing the concepts behind our expert researched recommendations.

For the evaluation portion of this proposal we will use surveys that display questions about things these farmers liked and disliked about our program and also things that they would like to see changed in the future. We will also have a portion of the survey that asks them if they have reached out to any of the resources and organizations shared with them during our

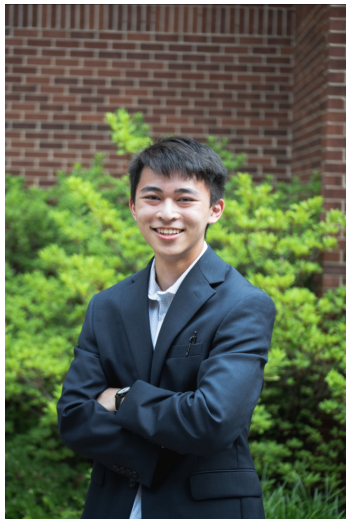
educational period. In order to make sure that this survey is accessible in areas where the internet is not the best, on week 15 we will bring paper surveys for the three farms to fill out.

Team Member Information



Mason Doody

Mason Doody is a senior at the University of Maryland majoring in Bachelors of Science in Business Management with an associates in Business Administration. He is the grandson of a lifelong farmer in Carroll County, Maryland who handles 100+ acres of land where he raises cattle like cows and goats and grows crops like corn, soybeans, wheat, and more. He participates in campus-wide Do-Good-Now exercises across his campus.



Andre Nguyen

Andre Nguyen is a senior at the University of Maryland who is studying Computer Science. His upper level concentration is in Public Policy, as he is very passionate about the environment. He always thought that the environment was an important, but overlooked issue in today's world. Through rigorous courses, he has learned plenty about the environment, sustainability, and the relevant legislation.



Jewel Lester

Jewel Lester is a Senior at the University of Maryland College Park who is majoring in Government and Politics and minoring in Public Leadership. Her passion for the environment and environmental justice has sparked her passion in learning more about how current farming practices have been a detriment to the environment and people of less fortunate circumstances.



Keila Espinal

Keila Espinal is a sophomore at the University of Maryland pursuing a bachelor's degree in Information and Technology Design, also known as Infodesign. She dedicates herself to helping the environment effectively and learning sustainable ways to take care of the environment.

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SECTION 2: REFLECTION

Action Choice

Starting back to the beginning of the presentation, we all agreed that an environmental impact is the most intriguing topic we could discuss. We wanted to help farmers in proper soil usage, equipment practices, and education on legislation. Instead of picking just one, we decided to dive into all 3 under the topic of “modern farming”. Not all farmers have issues in all 3 categories. Some can have the education on their soil but utilizing outdated equipment, others may have the most modern equipment but participating in practices against legislation, and some may have the modern equipment but their soil is improperly cared for and crop growth is restricted. As a result, we wanted to work with farmers in all categories and see what practices we could improve on both large and small scales. Instead of creating an entire organization, we felt an out-reach style of helping farmers would be the most practical way to achieve our modern farming goal. This includes selling ourselves to farmers so that they will be willing to work with us. Following this, we will conduct educational ‘bible studies’ but rather than the bible, we educate them on modern farming practices. We will finish up the semester with evaluating the implementation and testimonies of the farmers on how improved their farming has become.

Lessons Learned

As individuals, we each had our own issue within the overall category of environment that we wanted to address. Collectively, we decided to focus our efforts on farming, as we believe that is one of the core components of the system. Some of us had little to no experience regarding sustainable farming practices, while others had extensive knowledge on the matter. However, as a group, we learned that there are so many resources on sustainable farming methods, but some farmers do not follow these practices. This is because there isn’t strong legislation on the matter and/or farmers don’t make enough money to afford the equipment needed for better practices (World Wildlife Fund, 2022). The best way individuals can cause a meaningful impact is by voting on legislation that supports farmers and forces them to practice sustainable farming (Sinnes, 2022). From class and our own beliefs, more legislation and support on the matter would heavily influence the root/main component of the overall system. However, legislation that intends to aid farmers may actually negatively impact them due to stacked laws. For our proposal, we figured educating and reaching out to farmers was the most feasible course of action within a semester. By educating more people, we can raise more awareness on the issue and lead people to the polls in order to preserve our planet.