

**The Dr. Michael N. Compton
2018 Public Affairs Essay Contest**



2018 Winner, Ms. Delaney O'Donnell

Name: Delaney O'Donnell

Bio: I am a senior animal science major from Henrico VA.

Topic: My essay focuses on how public opinion often differs from contemporary scientific understanding and how citizens can separate facts from an abundance of biased narratives, in the context of providing sustainable food for a hungry and growing population.

Non-Profit: Equi-Librium Therapy Center, Rogersville MO.

Word Count: 875 words.

We face an unprecedented challenge in the next 30 years. The population is expected to grow from 7.4 billion people today to 9 billion in 2050. By 2100, this number will reach 11 billion. The clock is ticking for us to figure out how to feed all these people. We are already lagging, as currently 800 million people in developing countries are suffering from chronic undernourishment. There will be an astonishing growth in this number if we do not find a way to sustainably produce more food in the future, without using any more land than we use today. A solution to this problem requires that citizens, researchers, companies, and policy makers in nations around the world come to a consensus about what methods, research, and technologies are the most likely to provide a sustainable solution. But how can the world agree on this, when we cannot even agree in our own country, in our own states, and in our own communities?

Less than 2% of the US population is engaged in the act of producing the food we all eat every single day. We have the luxury in developed nations of not having to think about all the details of how that food gets from the farm to our tables. Yet for a nation where very few of us actually produce food, we sure have a lot to say about it. Genetically Modified Organisms. Genetic Engineering. “Franken-foods.” Pesticides. Herbicides. Intensive Agriculture. Factory Farming. Corporations. Organic. Non-GMO. These are the words that are impossible to avoid during any conversation or debate about food systems. It is a good thing that we are talking, given the unprecedented changes happening in our world.

The fundamental question is how should we – active engaged citizens in a democratic nation – discover the truth about the food we eat, the practices used to produce it, and the policies surrounding it? What is safe and what is dangerous? How do we separate facts from fiction? How do we decide who is telling the truth and who is telling lies? We cannot all go read the myriad amounts of scientific literature, inspect the peer-reviewed journal articles, and

carefully contemplate every blog post, book, and internet article about every issue in agriculture. But we can look to what we do when deciding on issues in other disciplines of study. When we have questions about chemistry, we ask a chemist. When we have questions about history, we ask a historian. When we have questions about our health, we ask a doctor. When we have questions about philosophy, we ask a philosopher. But the knee-jerk reaction when it comes to agriculture and food is not to do the same. We don't ask a farmer why animals are raised the way they are. We don't ask a scientist about the safety of genetically modified food. We don't ask an environmental scientist about the impact of herbicides and pesticides. But we should, especially as students at an institution with a Public Affairs Mission that states, "students will recognize the importance of scientific principles in the generation of sound public policy." Yet we tend to listen to the loudest voices, the ones proclaiming the dangers of this technology or that production method, instead of stepping back and looking at the whole set of evidence available to us.

Contemporary scientific understanding on many modern agriculture issues is clear. The majority of scientists agree that there is overwhelming evidence that genetically modified foods are safe. They agree that today's pesticides and herbicides are generally less damaging to the environment than many of their predecessors. They agree that progress has been made on sustainability, soil conservation, and water quality protection across a variety of agricultural fields. They agree that genetic engineering holds promise as one way to feed our growing world. Despite this consensus, more than half the US population does not agree that genetically modified foods are safe. Those arguing against the scientific consensus have seemingly powerful arguments. It is easy to take small data sets that aren't statistically significant and use them to ring alarm bells when words like cancer, toxins, and DNA changes are carelessly thrown around. Here in the US, this is in some ways harmless. We have the choice of what to eat and the luxury

of abundance. The grocery store shelves are overflowing, and chronic malnourishment is not a significant problem in the developed world.

Of course, we all have the freedom to choose how we eat and what we put in our own bodies. But the developing world does not have the luxury of abundance, and food scarcity is a real issue. When we do not have the experience or knowledge to accurately assess a problem ourselves, we must take into consideration the voices of those who do have that knowledge. When people are starving around the world we have a duty as ethical leaders to focus on the whole of the scientific evidence, not our own personal beliefs. When the scientific consensus is clear, we have a responsibility to act on it and to shape public policies that rely on evidence-based sustainable solutions for our growing world. The lives of billions of people in the coming years depends on our decisions today.