"Ew, What's That Smell?"

2015

It's a warm, bright, sunny day in late July. You're taking a relaxing drive and pass a three building, 12,000 head hog confinement. Your passenger then lets out a loud groan and says, "EW, what is that dreadful smell?"

Now, we have all experienced that sudden odor that saturates the air around us after we have driven by a hog confinement. The overpowering stench that seems to linger in everyone's car for what seems to be hours.

As a society, in my observations, we tend to wrap our minds too tightly around the negative stereotypes of swine, such as smell and neglect, instead of exploring the animal that has so much to do within our daily lives. But have you ever thought deeper than what comes to the eye, or in this case, the nose? Well, join me as we take a deeper look inside of this intelligent, significant animal.

Meat, specifically pork, is commonly found in American and non-American daily diets. In fact, it is the world's most widely consumed meat, accounting for 43 percent of all the meat consumed in a year (Foreign Agricultural Service /United States Department of Agriculture, 2015). That is equivalent to approximately 52.6 pounds per year per consumer worldwide (National Pork Board, 2009-2011), while the average American alone consumes 46.5 pounds per year (Food Democracy, 2011). The reason? Bacon. According to MenuMine, over 1000 different products featuring bacon were added to restaurant menus from 2000 to 2009, and they continue on the menu (National Pork Board, 2009-2011). So why is this?

Well, cuts of pork are an excellent source of protein, vitamins, and minerals making pork one of the healthiest meat choices. In fact, pork has one of the highest protein contents at 20%. Since protein is vital for keeping our organs healthy and building muscle, this is significant. In addition, pork contains other essential elements such as vitamins B1, B2, B6, B12, niacin, zinc, selenium, and iron. By the way, the iron in pork is easily absorbed by the body and helps the absorption of iron coming in through other sources, like bread and vegetables (Danish Agriculture and Food Council, n.d.). With pork being so rich in nutrients, it will continue to be a preferred food choice. This is shown not only through household consumption, but also in government programs. For example, according to the National Pork Board, in 2010, the United States Department of Agriculture, also known as the USDA, bought 100 million pounds of pork, valued at 165 million dollars for food assistance programs. Programs which include school lunch and breakfast (National Pork Board, 2009-2011). To put this into perspective, that is equivalent to the average salary of 4,013 people in my home state of Iowa. (United States Department of Labor, Bureau of Labor Statistics, 2015). Now, the world's population is predicted to surpass 9 billion by the year 2050 (United States Census Bureau, 2015) and with pork being such a high demanded commodity, one would think it will continue to provide us with nutrients and be essential in our daily lives. However, pork is not only essential to us in meat consumption, but also by supplying us with byproducts. Byproducts that could potentially save our lives (AnimalSmart.org, n.d.). So what exactly are byproducts?

Well, according to Merriam-Webster, byproducts are something that are produced during the production or destruction of something else (Merriam-Webster, Incorporated, 2015). Now, before your mind automatically directs towards the classic byproducts produced by pigs, let's consider some more impactful to mankind. Now, don't get me wrong, crayons, glue, and buttons (AnimalSmart.org, n.d.) are pretty important things, but pigs have a lot more to offer. Medtronic, the world's largest medical technology company, has calculated that every year about 5 million Americans find out they have heart valve disease (Medtronic, 2010) and according to the American Burn Association 486,000 people are burn victims that require treatment yearly (American Burn Association, 2014). With pigs being thee closest match, they are predominantly used within these circumstances (National Pork Board, 2009-2011). These two byproducts better the lives of thousands in need, every day.

Not only does swine impact the American diet and provide us with a multitude of byproducts, it is also responsible for several jobs. These encompass areas such as veterinarians, truck drivers, and construction workers, which are supported by the production of pork (PigCareers.com, 2015). In fact, the United States in 2013 had over 67,000 jobs directly related to pork production. This resulted in about 480,000 extra jobs nationally. That is a total of more than 547,000 jobs that are dependent on the production of pork.

But pork doesn't only impact jobs. In fact, according to the National Pork Producers Council, $122 billion was contributed to the United States economy, with an

additional $39 billion to the country's gross national product from pork alone in 2013 (National Pork Producers Council, n.d.). Thus, pork is a vital component of our economy!

Now, as much as I would love to boast and brag about my favorite animal, there are always two sides of the story. Yes, manure possesses an odor; however through proper handling and management, this odor can be minimized. For example, how the manure is stored, utilized, and recycled affects the extent of the odor. In addition, what is consumed by the animal also affects the odor. For instance, if a ration is fed that requires a higher level amount of bacteria to digest, then the feces will have a more potent odor (Miller, 2007).

Now, manure is a tremendous help towards the conditioning of the soil (Phipps, 2015). It not only provides natural organic matter bringing many benefits, it also contributes many needed nutrients, such as nitrogen, phosphorus, and potassium (Lovejoy). As the Public Policy Director of the Iowa Pork Producers Association stated in a recent interview, "We are manure deficient and need more livestock in the state to make our system more sustainable, and fulfill our nutrient needs" (McKinley, 2015).

As this statement conveys, it is evident that we do need the manure, but along with it comes environmental concerns. For example rain, through erosion and leaching, washes away some of the harmful elements that can be found in the manure, which impacts our water quality. The United States Environmental Protection Agency recorded that excess nitrogen decreases oxygen for fish, reduces food resources and

habitats, and forms harmful algal blooms that contain toxins (United States Environmental Protection Agency, 2015). Therefore, the recycling of manure does require a higher level of management to reduce nitrogen runoff along with managing the soil.

So as you can see there are both positives and negatives associated with the raising of pork. However, pork does offer many positives that are critical to us as humans. The growing population and the increased demand are complicated variables that are completely out of our control, but with the help of swine production we are able to keep up. We are not only able to improve farm soil, save lives through heart valve transplants and skin grafting, provide nearly 550,000 jobs nationally as well as provide an essential nutrient source to our diets. So, next time you venture past a three building, 12,000 head hog confinement and the smell of hogs fills your airways, be sure to be reminded of this extraordinary animal for all the right reasons.

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