

Burning of Farming Plastics and Agricultural Waste Determined to be a Cause of Air Pollution in Scotland

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Overview:

◆ To examine the ways in which the burning of farming plastics and agricultural waste has effected the air quality in Scotland, as well as global health.

What is Air Pollution?

Air pollution can be separated into two categories: indoor and outdoor air pollution. As part of my research, I focused on outdoor



Google Images, <https://www.nrdc.org/stories/air-pollution-everything-you-need-know>

air pollution, particularly in Scotland. Scotland is a nation that features a large agricultural sector. Outdoor air pollution is the type of air pollution which is concerned with fine particles released into the air that we breathe. The fine particles are mostly made up of burned fossil fuels (waste), noxious gases, smoke and ground ozone (NIH).

Air Pollution in Scotland

Air pollution in Scotland has improved since 1996 when the Scotland Environment Protection Agency (SEPA), was established. SEPA has improved air pollution by creating outreach programs to help operators and businesses understand and adhere to strict air quality standards. By creating this outreach program that allows SEPA to interact with businesses and farmers across Scotland, SEPA has improved the environment, economy, and overall community of Scotland. SEPA allows for connectedness among the government and the agricultural and business sector (SEPA).

What causes Air Pollution in Scotland?

In Scotland, as in all places in the world, air pollution is caused by a variety of contributing factors. First, transport energy, which includes all forms of transportation, contributes greatly to emissions in Scotland. Additionally, much of air pollution is contributed by agriculture. The agricultural sector of Scotland has improved greatly in the last decade and has been steadily working towards creating an environmentally clean sector (SEPA). One way in which SEPA has been working towards an environmentally clean agricultural sector was the ban against burning plastics in agriculture as of January 1, 2019 (SEPA).

Where does the majority of plastic waste come from in Scotland?

The majority of plastic in Scotland comes from Grangemouth Operators Ineos, which imports a large amount of fracked U.S. oil to produce plastic in Scotland. An overwhelming amount, an estimated 85,000 tons of this plastic, is produced annually by the agricultural sector across the UK (Resource Magazine). Plastics that are produced by the agricultural sector are called "farm plastics". Included in the category of farm plastics are silage wraps, crop covers and fertilizer bags (Resource Magazine).



Google Images, <https://www.sepa.org.uk/what-we-do/supporting-scotland>

Agricultural Waste Reformation in Scotland.

Prior to January 1, 2019, farmers were able to continue burning farm plastics, as they fell under an exemption that was overlooked by



Google Images, <http://www.stackyard.com/news/2016/02/>

SEPA in 2013. The exemption in the environmental regulations of 2013 allowed farmers to incinerate plastics on their lands. Since the update of the regulations, SEPA, along with various waste projects in Scotland and the National Farmers Union (NFU), have been able to better understand the health risks of burning plastic waste (Resource Magazine).

How does burning plastic waste affect human health?

Through studies done by "The World Health Organization", scientists were able to conclude that outdoor air pollution is a carcinogen and leads to a variety of unwanted health issues. Included in unwanted health issues are heart disease, lung cancer and chronic and acute respiratory diseases such as asthma (WHO). Outdoor air pollution is a major risk facing global health, as it affects everyone of all income levels in some form in every country. Additionally, outdoor air pollution is affected greatly by the amount of particulate matter we are exposed to in the air. This has led to many health issues because they are small enough that they can penetrate the tissues of the lung and enter the blood system. The amount of particulate matter that is present in the air is mostly made up of the hydrocarbon byproducts produced when plastic is burnt and released into the atmosphere.

Scotland's New Policy on Burning Plastics and Agricultural Wastes on Farms

As of January 1, 2019, SEPA outlawed the burning of most agricultural wastes, including farm plastics, and strictly enforces this law (SEPA). The hard work of both SEPA and the National Farmers Union (NFU) has helped to promote the health of Scottish farmers, as well as Scottish citizens, by reducing one of the largest sources of air pollution in the nation.

How Scotland Continues to Tackle Waste Reformation

Scotland continues to reinforce this law, as well as continues to promote being mindful of how much waste we produce. The efforts being made by Scotland's government is to continue funding SEPA. Additionally, SEPA has made efforts to discouraging single-use plastics, reducing and recycling of food waste and creating a deposit return method for single use plastics (Scottish Government).



Google Images, <https://www.stuff.co.nz/business/farming/102820663/farm-chemical-and->

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