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Climate Change and Agriculture... what farmers can do
to help out Daniel Rogers JNL

Climate change is one of the major challenges we face as humans on the daily. For over 250 years we've burned fossil fuels, changed the landscape for materials use and of course, farmed our land. Agriculture has contributed to global warming by increasing the concentration of Green House Gases with such gases like carbon dioxide, methane and nitrous oxide. Agriculture in Ireland currently accounts for 33% of Irelands total greenhouse gas emissions. This statistic is staggering, and it is one of the highest shares of emissions in Europe. What is climate change you may ask, Climate change is a long-term change in the average weather patterns that have come to define Earth's local, regional and global climates. In 2020 Irelands Green House Gas emissions increased by 1.4% as there was an increase in nitrogen fertiliser and use of lime on the land. The number of Dairy Cows within the country went up 3.2% and milk production rose 3.8%

Although these stats are alarming, Irish farmers can help reduce these G.H.G emissions. For example, they can switch to 'protected urea' fertiliser which is specially treated to help reduce the loss of nitrogen into our atmosphere. They can also plant clover, as it absorbs nitrogen from the air and returns it back into the soil, this also reduces the need of chemical fertiliser application. When spreading slurry, farmers should invest in a dribble bar or trailing shoe as these systems reduce g.h.g emissions also to spread their slurry as early as possible in the spring time as it reduces g.h.g emissions due to weather conditions and the slurry has less of a storage time in the tank. Brands such as abbey, belmac and slurrcat have been the top brand of slurry tanker with dribble bar/trailing shoe systems for over the last few years as popularity rose in these methods of spreading slurry.

Now a day's farmers can go greener especially with the machinery they drive. For example, Landini, a brand of tractors under the Argo brand ranging from 50 to about 300hp caters for all types of farming whether its vineyard farming or tillage. The development they've made to create a Hybrid tractor has fully come through with the help and research of their team. This hybrid tractor cuts down on fuel consumption and emissions with the development of their front axle battery operated motor. This can only be seen on its vineyard tractor model at this moment in time, but it is one big step in creating a greener future. We see other brands are beginning to tap into the electric market now with lesser known brands like farmtrac starting to make developments with their fully electric tractors.

Farmers can also practise crop rotation methods; this method has been around for years and was first practised by George Washington Carver. This method allows for less chance of disease being spread within the crop but also allows people to cut their costs and amount of pesticides and chemical fertilisers on their ground and will cause less harm to our environment.

Farmers should now consider organic farming methods. These methods mean no chemicals and only natural fertilisers and additives for the land. Organic farming is a practise which isn't as much practised by Irish farmers but has slowly been becoming more popular. Research has shown, fertilization increases the organic carbon in the soil, leading to the huge release of CO₂ into the atmosphere. Organic agriculture practices will help farmers to reduce the emission of nitrous oxide and methane from the soil.

In my own opinion and coming from a farming background, these methods should be promoted more by Teagasc and the Irish Farmers Association. This would influence farmers more to go green and look after our environment for example, the IFA website has little to no content in climate change, an association as big as them should be pushing these issues more. On my own family farm, I see my father taking on board ideas I have to offer on climate change and how we can do our bit to save the environment. For example, we are now planning to plant clover next spring.

I would like to drive a hybrid tractor or even a battery operated farm machine in the future, the development in this sector of vehicles should be more worked on and as a passionate fan of the Landini/Argo brand it is great to see these smaller brands making such a difference for our environment. I believe big tractor brands like New Holland, Case and John Deere should start to focus on these hybrid electric tractors and take initiative from their competitors. I also feel like the organic farming should have more schemes and grants allowed for it as this is a way in battling climate change, farm representatives and members of Teagasc or the IFA should push these methods of farming also as a way of battling climate change.

You see it doesn't take a whole pile to help our environment. Farming is a big cause for global warming but these actions can be swapped and replaced with better methods of farming, simple changes like this can contribute to saving our environment, One step at a time and changes to the way we farm will make such a difference.

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