Do Cattle That Graze Off of Farmfields That Have Been Farmed With Plastic Mulch Have Microplastics in Them?

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This year, I studied if microplastics were present in cattle that graze off of farm fields that use plastic mulch. I have been studying microplastics for the past three years where I have studied the presence of microplastics in the soil, if microplastics migrate from farmfield to farmfield, and if the extraction methods of plastic mulch affects the amount of microplastics in the soil. Growing up in an agricultural area I wanted to help farmers and cattle owners to produce the most profitable and healthy animals and plants as possible. The purpose of this project is to determine if microplastics are found in cattle that graze off of farm fields that are farmed with plastic mulch. I believe that microplastics will be present in cattle. For this project you will need Sodium Chloride Tablets for the Nacl solution, a Dever Scale mxx-123 for measurement, Medium Mesh Paint Filter, etc. I collect 10 soil samples from a farmfield that was never farmed with plastic mulch, one the was farmed for 1 year with plastic mulch, and one that was farmed for 6 years with plastic mulch. I put all of the samples into a glass mason jar and used a Nacl solution to float the inorganic material. I used a 50ml pipette to collect the liquid from the top, I put them onto a Medium Mesh Paint filter and let the samples sit overnight. Then transferred them into glass vials and measured the samples on a Denver Scale mxx-123. The 6 year farmland had the most amount of microplastics presence in cattle with a total of 4.74, microplastics were found in both the control and 1 year as well. My conclusion was the microplastics are present within cattle.

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