Can Natural Bryophyta Gardens Affect Air Quality, and Overall Health, and Possibly Put Forth New Ways to Rid the Atmosphere of Greenhouse Gasses? A Small Piece of the Bigger Picture

Holly, Erin (School: Perryville Senior High School)
Muench, Jasmine (School: Perryville Senior High School)

What if people could naturally purify the air in and around their homes? Instead of using filters, and harsh chemicals, people could grow small moss gardens in their homes to rid the air of dust, moisture, and greenhouse gasses. Research shows that moss is known to remove Carbon Dioxide from the air and produce Oxygen through Photosynthesis at an accelerated rate compared to other plants. Moss also traps more molecules than other plants. The experiment was designed to make it understood whether or not moss would cleanse the air around it, better when compared to lawn grass. Along with these properties, moss gardens make beautiful additions to your home and are easy to take care of. The theory is that if more people were to bring moss into their homes and eventually outside their homes as well, it would help to clean our atmosphere and lead to future solutions to Global Warming. When the experiment began, there was a lot of trial and error trying to keep the plants alive, in the new environment. After research and testing, the best conditions for the local moss to grow healthily were discovered. Once things started running smoothly, it became easy to see that the moss was indeed beneficial for the air quality in the space surrounding it until things went wrong. Due to heavy snow, the school was out for over a week and the plants began to die. When school was back in session, the moss was producing more Co2 than ever and it was really hard to try and get it back on track. Toward the end of our experiment, both the grass and the moss had new buds and the levels began to change. It is believed with a little more time this hypothesis would have been proven correct. But nevertheless, there is no success without failure and the outcome of the experiment is not regretted.

Awards Won: