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Mushroom Cultivation Market Dynamics and Biostatistical Anal-

ysis SANGWOO KWON, Saint Johnsbury Academy — In modern agriculture, mushrooms have been established as one of the worlds most in-demand crops for their ubiquity and diversity. From human consumption to medicinal uses, mushrooms have played a significant role in the human diet. In this paper, the global mushroom market and mushroom cultivation for poverty reduction is studied. Statistical analysis to determine the trend of the market growth was also performed considering various factors. Such factors include the various health benefits of mushrooms, cost-effective production, and changes in the universal preference for organic food products in accordance with a high demand for vegetarian diet. Using an open-source molecular editing program equipped with a biochemical component analysis module, biophysical and biochemical properties of the mushroom products were studied. This software allows users to virtually build a molecule and optimize its geometrical properties according to various force field options.

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