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Flower Ash: A Sustainable Byproduct for Environmental and Industrial Applications

Flower ash, a product of burnt floral waste, is very rich in minerals, especially, calcium, potassium, magnesium, and trace elements; therefore, it can be used in many different ways. Religious and cultural rituals always involve the use of flowers, they have become one of the major waste producers but are often overlooked. Transforming this waste into ash will make it one of the renewable resources in many other fields. In the field of agriculture, flower ash acts as a natural fertilizer, soil conditioner, and also helps in soil pH and improving plant growth. This is further used as an adsorbent in wastewater treatment for the elimination of heavy metals and other contaminants that are present in the water joining well with the surface of the ash due to its high surface area and active functional groups. Moreover, the alkalines are less that make the ash appropriate for inclusion in green cleaners as well as in making bioconstruction materials. Continuous research on the chemical composition and properties of flower ash can lead to more innovative uses in the industrial and environmental sectors, which will in turn promote the utilization of waste and the protection of the environment.

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