



Together, pelleted biosolids and cover crops improve soil properties

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Heat-dried pelleted biosolid applications used as an organic fertilizer for crop production and improving soil health. Photo by Ardeshir Adeli.

Keeping soils in a healthy condition is important to ensure satisfactory crop growth and yield. Biosolids are nutrient-enriched organic matter, and their application to agricultural lands increases soil organic matter and results in general enhancement of soil health. However, a very small percentage of the total amount of biosolids produced in the U.S. are utilized for crop production due to difficulties in transport, handling, and field application. In recent years, biosolids have been turned into heat-dried pelleted forms to stabilize nutrients and increase the economic feasibility of transportation and handling. Information on the effects of heat-dried pelleted biosolids on crop production and soil properties is limited, particularly in the sub-humid Southeast.

In a new *Soil Science Society of America Journal* study, researchers evaluated the integration of pelleted biosolid with winter cover crops. They compared the impacts of pelleted biosolids to poultry litter, an abundant organic amendment in the Southeast, on soil health. The team found that a combination of pelleted biosolids and winter cover crops can offer a sustainable practice in terms of improving soil physical and chemical properties and enhancing crop yields compared with poultry litter and inorganic fertilizer under southeastern U.S. agroecosystems.

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Adeli, A., Brooks, J.P., Feng, G., Mozaffari, M., & Jenkins, J.N. (2021). Integration of pelleted biosolids with cover crops for improving soil properties. *Soil Science Society of America Journal*. <https://doi.org/10.1002/saj2.20341> (in press)

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