

Horticultural soil from sludge

Hitachi Zosen Corp., Japan, has developed technology to transform sludge obtained from water purification plants into horticultural soil. Sludge is generated by the solid-liquid separation of sediment that is collected during the filtration of water taken in from rivers and other water sources. This sludge contains silt and clay, apart from soluble aluminium that is released by the coagulating agent used for treating water. The soluble aluminium has to be eliminated as it causes phosphoric acid deficiency in agricultural products.

Hitachi Zosen's process granulates, dries and bakes the sludge to yield horticultural soil. Sludge is first dehydrated, by about 60 per cent, and then processed in a primary crusher to obtain grains having a diameter of 15 mm or less. The grains are then processed to a low moisture level (about 40 per cent) in the primary drier. Low moisture content makes the grains suitable for further granulation. They are then processed by a granulator to yield granules having an ideal shape for use as soil. After being dried in the secondary drier, to an almost moisture-free level, they are baked in a rotary kiln. The baked granules are cooled, sorted and packaged.

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Website: http://www.nett21.unep.or.jp/CTT_DATA/WATER/WATER_4/html/Water-219.html