PRODUCTION OF GRANULATED ORGANO MINERAL FERTILIZER FROM PIG SLURRY AND POULTRY LITTER IN BRAZIL

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Pig and poultry farming activities are growing very rapidly in Brazil. These production systems generate large quantities of organic waste. Currently in Brazil about 7.8 million tons of poultry litter and 105 million m³ of pig slurry are produced annually. The use of these residues as a source of nutrients for growing annual crops and pasture is common practice in several Brazilian regions. However, the use of animal waste in natura results in low nutrient use efficiency, losses by leaching and volatilization, increasing the risk of environmental contamination. After biological transformation of the animal waste and its association with mineral sources a granulated organomineral fertilizer is produced. These organomineral fertilizers show a high content of soluble phosphorus, which is adequate to be used in annual crops. The physical and chemical characteristics of the granulated organomineral fertilizer are in accordance to the Brazilian fertilizers laws. Field results indicate that the P use efficiency by the plants using the organomineral fertilizers is similar to soluble fertilizers. Depending on the region the granulated organomineral fertilizer can be low cost alternative P source for cropping areas due to aspects related to distribution logistics.