

Research Article

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Effect of PBSW and biofertilizers on the solubilization of P from RP to soybean in inceptisol

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Summary

The field trial was conducted during *Kharif* season (2009-2010) at Post Graduate Institute Farm, Mahatma Phule Krishi Vidyapeeth, Rahuri to study the effect of PBMSW and biofertilizers (PSB and EM) on the availability of P from RP to soybean in inceptisol soil. The trial was laid out in RBD with 3 replications and seven treatments. The experimental soil was alkaline in reaction sandy loam texture, moderately high in organic C, low in available N, medium available P and high available K. The applied PBMSW was near to neutral in reaction and high EC. The total P_2O_5 in RP was 19.17 per cent. The treatments were composed of T_1 - Absolute control, T_2 - GRD, T_3 - PBMSW@60m³ha⁻¹, T_4 - RP+PBMSW, T_5 - RP+PBMSW+PSB, T_6 - RP+PBMSW+EM and T_7 - RP+EM+PSB. The results of experiments regarding soil status after harvest of soybean revealed that significant reduction in soil pH (8.30 to 8.17) and increased EC (0.34 to 0.43 dsm⁻¹), organic carbon (0.54 to 0.73%), calcium carbonate, total P, available N, P and K. There was also increase in the uptake of N, P, K by soybean due to application of PBMSW @ 60m³.

Key words : Rock phosphate, Post biomethanated spent wash, PSB, EM, Soybean, Soil available P, P uptake

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