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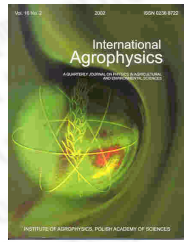
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Some factors affecting clay dispersion and aggregate stability in soils of Nigeria

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abstract Using 22 soil samples from Nigeria, comprising Alfisols, Entisols, Ultisols and Vertisols with 77- 676 g kg⁻¹ clay, we studied the effect of various treatments on clay dispersion. Aggregate stability was evaluated by the (AC) index, i.e. clay in calgon minus clay in H₂O. Treatments with H₂O₂ to organic matter (OM) showed only slightly increased clay dispersion in some soils. Organic matter also showed low correlation with amount of clay was dispersed following soil treatment with sodium dithionite bicarbonate (DCB) than with acid NH₄ – oxalate (Ox). Treatment with either bicarbonate (B), Na-citrate (C) or Na-citrate plus Na-bicarbonate (CB) produced amounts comparable to those obtained with the DCB treatment but extended to 2.11% of FeD and 0.24 to 19.2% of AID. Generally, there were no significant correlations between the amount of dispersed clay and the contents of organic matter obtained from soil treatments with either B, C or CB extractants. Consequently,