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The Role of Soil PH on Plant Growth

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Abstract: In the natural atmosphere, soil hydrogen ion concentration has a huge influence on soil biogeochemical processes. Soil pH is, therefore, delineated because the "master soil variable" that influences myriads of soil biological, chemical, and physical properties and processes that have an effect on plant growth and biomass yield. This paper discusses however soil hydrogen ion concentration affects processes that square measure interlinked with the biological, geological, and chemical aspects of the soil atmosphere yet as however these processes, through anthropogenesis interventions, induce changes in soil hydrogen ion concentration.

Keywords: Soil pH, Plant Growth, Biogeochemical, etc.

REFERENCE

- [1] Kabata-Pendias, Trace Elements in Soils and Plants, CRCPress, Boca Raton, FL, USA, 2011.
- [2] Z. Rengel, "Genotypic differences in micronutrient use efficiency in crops," Communications in Soil Science and PlantAnalysis, vol. 32, no. 7-8, pp. 1163–1186, 2001.
- [3] H. Cui, Y. Fan, G. Fang, H. Zhang, B. Su, and J. Zhou, "Leachability, availability and bio accessibility of Cu and Cd ina contaminated soil treated with apatite, lime and charcoal: afive-year field experiment," Ecotoxicology and EnvironmentalSafety, vol. 134, pp. 148–155, 2016.
- [4] J. A. Baldock, "Composition and cycling of organic carbon insoil," in Nutrient Cycling in Terrestrial Ecosystems, P. Marschnerand Z. Rengel, Eds., pp. 1–35, Springer-Verlag, Berlin, Germany, 2007.
- [5] F. Vogel, J. Harf, A. Hug, and P. R. von Rohr, "(e mean oxidation number of carbon (MOC)-a useful concept fordescribing oxidation processes," Water Research, vol. 34,no. 10, pp. 2689–2702, 2000.
- [6] S. Andersson, S. I. Nilsson, and P. Saetre, "Leaching of dissolved organic carbon (DOC) and dissolved organic nitrogen(DON) in mor humus as affected by temperature and pH," Soil Biology and Biochemistry, vol. 32, no. 1, pp. 1–10, 2000.
- [7] D. Curtin, C. A. Campbell, and A. Jalil, "Effects of acidity on mineralization: pH-dependence of organic matter mineralization in weakly acidic soils," Soil Biology and Biochemistry, Vol. 30, no. 1, pp. 57–64, 1998.
- [8] C. D. Evans, T. G. Jones, A. Burden et al., "Acidity controls on dissolved organic carbon mobility in organic soils," Global Change Biology, vol. 18, no. 11, pp. 3317–3331, 2012.
- [9] T. Oulehle, S. Shi, W. Zhang, Y. Wu, M. Yang, and P. Wang, "Environmental factors and dissolved organic carbon contentin a Jinchuan peatland," Acta EcologicaSinica, vol. 36, no. 3, pp. 160–165, 2016.
- [10] D. Curtin, M. E. Peterson, and C. R. Anderson, "pH-dependence of organic matter solubility: base type effects on dissolved organic C, N, P, and S in soils with contrasting mineralogy," Geoderma, vol. 271, pp. 161–172, 2016.
- [11] S. Andersson and S. I. Nilsson, "Influence of pH and temperature on microbial activity, substrate availability of soil-solution bacteria and leaching of dissolved organic carbon in amor humus," Soil Biology and Biochemistry, vol. 33, no. 9,pp. 1181–1191, 2001.
- T.-H. Anderson, "Microbial eco-physiological indicators toasses soil quality," Agriculture, Ecosystems & Environment, Vol. 98, no. 1–3, pp. 285–293, 2003.
- [13] J. C. A. Pietri and P. C. Brookes, "Nitrogen mineralisationalong a pH gradient of a silty loam UK soil," Soil Biology & Biochemistry, vol. 40, no. 3, pp. 797–802, 2008.
- T.-H. Anderson and K. H. Domsch, "Carbon link betweenmicrobial biomass and soil organic matter," in Perspectives inMicrobial Ecology, F. Megusar and M. Gantar, Eds.,pp. 467–471, MladinskaKnjiga, Copyright to IJARSCT DOI: 10.48175/IJARSCT-4932 201
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- [15] E. V. Blagodatskaya and T.-H. Anderson, "Interactive effects ofpH and substrate quality on the fungalto-bacterial ratio andqCO2 of microbial communities in forest soils," Soil Biology andBiochemistry, vol. 30, no. 10-11, pp. 1269–1274, 1998.
- [16] D. Neina, A. Buerkert, and R. G. Joergensen, "Microbial response to the restoration of a Technosol amended with localorganic materials," Soil and Tillage Research, vol. 163,pp. 214–223, 2016.
- [17] D. Neina, A. Buerkert, and R. G. Joergensen, "Effects of landuse on microbial indices in tantalite mine soils, Western Rwanda," Land Degradation & Development, vol. 28, no. 1, pp. 181–188, 2017.