



*Supplement of*

## **Unassisted establishment of biological soil crusts on dryland road slopes**

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**Supplementary material** associated with the article: Concostrina-Zubiri et al. “UNASSISTED ESTABLISHMENT OF BIOLOGICAL SOIL CRUSTS ON ROADSLOPES: HINTS FOR ALTERNATIVE RESTORATION IN DRYLANDS”.

**The laboratory techniques used to determine each soil property:**

5     $\beta$ -glucosidase and acid phosphatase activities were estimated by determination of the amount of p-nitrophenol released from 0.5 g soil after incubation at 37 C for 1 h, with the substrate p-nitrophenyl phosphate in MUB buffer (pH 6.5) for phosphatase activity (Tabatabai & Bremner 1969), and with the substrate 4-nitrophenyl- $\beta$ -D- glucopyranoside in MUB buffer (pH 6.5) for glucosidase activity (Eivazi & Tabatabai 1988). Total organic carbon was determined by colorimetric techniques after oxidation

10    with a mixture of potassium dichromate and sulfuric acid (Yeomans & Bremner 1988), and total phosphorus and available total nitrogen on a 19 SKALAR SAN++ Analyzer (Skalar, Breda, The Netherlands) after digestion with sulfuric acid and Kjedahl´s catalyst (Anderson & Ingram 1989). Potassium was measured with the same analyser after the soil samples had been shaken with distilled water (1:5 ratio) for 1 h. All of these analyses were performed in the NUTRILAB laboratory of Rey

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