



Recovery of soil properties after seedlings Inoculation with AM fungi and addition of composted olive mill waste in the regeneration of a heavy metal polluted environment

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A greenhouse experiment was carried out in order to investigate the effects of arbuscular mycorrhizal (AM) fungi inoculation and the use of composted olive waste (COW) on the establishment of *Tetraclinis articulata* and soil properties in a heavy metal polluted soil. The higher doses of COW in combination with AM fungi increased shoot and root biomass production of *T. articulata* by 96% and 60% respectively. These treatments trended to improve the soils properties evaluated, highlighting the C compounds and N as well as the microbiological activities. In relation to the metal translocation in *T. articulata*, doses of COW applied decreased the Cr, Ni and Pb contents in shoot, as well as Cr and As in root, although the most of them reached low levels and far from phytotoxic. The COW amendment aided *G-mosseae*-inoculated *T. articulata* plants to thrive in contaminated soil, mainly through an improvement in both nutrients uptake, mainly P and soil microbial function. In addition, the combined use of AM fungi plus COW could be a feasible strategy to be incorporated in phytoremediation programs; because it promotes soil properties, a better performance of plants for supporting the stress in heavy-metal contaminated soils derived from mining process, and also can be a good way for olive mill wastes disposal.