



Applied Physics and Soil Science in engineering schools

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Soil is a limited natural resource of high relevance for our society. However, many undergraduate and first-year college students remain insensitive or do not understand the relevance and importance of soil science in their daily lives. This communication shows the concern of the society about soil environmental issues and presents the assessment of the 1st year results of a pilot project which aims to evaluate the change in perception about soil and soil science of students during their 1st course of agronomy and forestry engineering schools.

We distributed an online questionnaire among a broad range of population in terms of occupation, age, gender and origin. The questionnaire consisted of assorted questions related to their knowledge of environmental problems and how did they get it. Based on the results of this preliminary study, we prepared a different questionnaire for the students combining the previous questions and five new questions regarding the connection between soil science and the 1st course of engineering applied physics lectures.

The preliminary questionnaire highlights the importance of key physical processes regarding soil, such as erosion, for the whole population under study. Their education was found to be the main source of this knowledge while their personal interest and professional background, almost equally answered, were secondary reasons. Given that education was identified as the main reason we decided to explore the potential responses among the 1st course of engineering applied physics students. Although students have a vague knowledge about soil and soil science, they did not manifest or understand a clear relation between the former and the physics behind it that can be used to characterize different environmental processes. Nevertheless, the results showed that students had a clear sensitivity about the role of soil as a very important environmental factor and the need to protect it against potential threats. These results will help to provide with educational strategies and specific training for undergraduate students from Agricultural and Forest engineering degrees.