



## **Study on the relationship between basic and applied subjects in Agricultural Engineering**

A. Perdignes (1), E. Gallego (2), N. Garcia (2), P. Fernandez (2), and L. Lleo (2)

(1) Technical University of Madrid, EUIT Agrícola, Department of Rural Engineering, Madrid, Spain, (2) Technical University of Madrid, EUIT Agrícola, Department of Science and Technology applied to Agricultural Engineering, Madrid, Spain

The engineer is someone who carries out develops technological solutions to social, industrial or economic by using knowledge of science, mathematics and appropriate experience to find the best solutions to specific problems. Therefore, all engineering studies include core subjects that are taught mainly in the first courses such as mathematics and physics, they provide essential training in order to pursue certain subjects that are applied directly related, such as electrical, construction, topography or engines and machinery, among others, that solve certain technological problems specific to the engineer.

A study was carried out with a total of 206 students, focused on the degree of Agricultural Engineer (Curriculum 1999) which is taught at the Technical University of Madrid, was designed to determine the degree of correlation between the results obtained by students in basic engineering materials ("Mathematics I", "Mathematics II", "Physics I" and "Physics II"), and certain applied subjects in the agricultural Technical engineering degree ("Electrical", "Engines and agricultural machinery" "Agro-industrial machinery and engines," "Design and calculation of structures", "Building agri-food," "Surveying, photogrammetry and cartography").