



FMECA Application in Rainfall Hazard Prevention

Fulgencio Buendia (1), Rafael Bermudez (2), Ana Maria Tarquis (3,4), and Diego Andina (1)

(1) ETSII, UPM Madrid, GASC, SSR, Madrid, Spain (fbuebue@gmail.es, d.andina@upm.es), (2) EUIT Obras Pùblicas. UPM Madrid, Spain, (3) CEIGRAM, Universidad Politécnica de Madrid (UPM), Spain, (4) Dpto. de Matemática Aplicada en Ingeniería Agronómica, ETSI Agrónomos, UPM, Spain

This paper presents a System Safety application to reduce the economical impact hazards in growings produced by Rainfall. System Safety is an engineering subdiscipline oriented to identify and mitigate the possible hazards to a system under study. Inside the System Safety area, the FMECA (Failure Mode, Effects and Criticallity Analysis) is a popular tool to analyze and identify the failures and weaknesses points of any system. Basically, it consist on identifying systematically the failure modes of a system to mitigate them as much as possible. The idea is to study three different kind of growings (stone fruits in the south of Spain, wheat production in Castilla Leon and Olive trees production in Andalucia) using this methodology in order to identify all the hazardous situations produced by rainfall. Applying the state of the art weather forecast techniques, this information would help farmers to prevent and mitigate the identified hazardous situations. The aim of the work is to prevent the economical hazards as are defined in the System Safety area: "Any real or potential condition that can cause injury, illness, or death to personnel; damage to or loss of a system, equipment or property; or damage to the environment", so the study is not reduced to the analysis of catastrophic situations but about any kind of economical damage produced by rainfall.

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