DESIGN OF A EUROPEAN AGROCHEMICAL PLASTIC PACKAGING WASTE MANAGEMENT SCHEME – PILOT IMPLEMENTATION IN GREECE

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Abstract

The Agricultural Plastic Packaging Waste (APPW) mismanagement practices constitute a major environmental problem, by polluting soil, air and water resources and compromising product safety and public health. In Greece, Italy, Cyprus and other countries this problem has not been dealt with until now. Systems for the management of APPW have been established in a few European countries, e.g. France (Adivalor [1]) and Spain (Sigfito [2]), but they are incompatible. Furthermore, their operational conditions and technical criteria could be improved.

This work presents the basic design principles of an environmental friendly and economically viable APPW management scheme in Europe, established by the AgroChePack Project [3]. The integrated, efficient, environmentally friendly and economically viable APPW European management system is expected to:

• Allow transfer of technology and experience from the existing systems and improve the rationalization of costs, operational efficiency and consistency.
• Provide the best possible solution by introducing innovations where no APPW management system exists.
• Enable the sustainable development of agriculture.
• Protect environment and public health.
• Allow the exploitation of the APPW’s material.
• Combine in a synergetic way the management of APPW with the management of the streams of other agricultural plastic waste (LabelAgriWaste [4]).

Within the framework of the project AgroChePack [3] pilot trials were designed and were applied in five med countries. The paper focuses on the system’s adaptation to the Greek conditions and its pilot implementation and operation. Two local collection stations and a central consolidation station were designed, constructed and operated in the region of the municipality of Visaltia. Laboratory analyses were performed on decontaminated APPW samples collected during the pilot operation of the system to verify the effectiveness of the decontamination and their characterisation as non-hazardous waste according to EU hazardous waste provisions.

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References
1. http://www.adivalor.fr/