Contribution of the Agriculture Advices in the Prevention and Evaluation of Risks in Vineyard within the Demarcated Douro Region

Mónica Alexandra Rodrigues (1,2), Ana Monteiro (1,3), Maria Helena Pina (1), Hervé Quenól (4), and José Rodrigues de Freitas (5)

(1) Geography Department, Faculdade de Letras, University of Porto; FLUP, Via Panorâmica, s/n, 4150-564, Porto, Portugal (monica.a.rodrigues@hotmail.com ; anamonteirosousa@gmail.com ; mpina@letras.up.pt), (2) Physics Department, University of Aveiro, Campus Universitário de Santiago, 3810-193 Aveiro, Portugal (monica.a.rodrigues@ua.pt), (3) ISPUP - Institute of Public Health, University of Porto, Rua das Taipas nº 135, 4050-600, Porto, Portugal, (4) Laboratoire COSTEL, UMR6554 LETG, Université Rennes 2, Place du Recteur Henri Le Moal, 35043 Rennes, France (herve.quenol@uhb.fr) - ANR-JC07-194103 TERVICLIM , (5) General Direction of Agriculture and Fishing in the North (DRAPN). Department of the Advices of Douro, 5050-071, Peso da Régua, Portugal (jose.freitas@drapn.min-agricultura.pt)

The Department of the Agricultural Advices of Douro is an Organic Unit of the General Direction of Agriculture and Fishing in the North (DRAPN) integrated in the National Service of Agriculture Advices (SNAA) of the Ministry of Agriculture, Rural Development and Fishing (MADRP) whose aiming is the issuing of agricultural advices. These agricultural advices through the due circular letters give information about the needs of phytosanitary interventions, giving the farmers in each specific area the most convenient dates and the most advised phytocultural products to destroy the crops enemies according to the principles of sustainable farming and integrated protection. These are done according to biological and phonological observations, laboratory analysis, meteorological registers and bibliographical research. The issuing of advice circular letters, has basically the global analysis of all the information joined, the evaluation of risk and the comparison with the patterns/economic level of attacking from which the enemies of crops may cause harm.

Our work is based on the gathering and collection of all the agricultural advices existing in the Advices Department of Douro. The data bank ranges the period between 1964 till 2010 for the three Sub-regions of the Demarcated Douro Region (DDR): Baixo Corgo, Cima Corgo and Douro Superior. In this research work, we have always privileged the quantitative information and, when this was accompanied by information of territorial basis, we have created a detailed cartographical basis, including the one based in ancient documents. Our structural options required a strict methodological framing, and so in this documental source we have selected the variables we have considered trustworthy and objective, such as the incidence of mildew, oïdium and grape moth in the three Sub-regions previously mentioned. This option compelled us to a deep informatics study of adaptation, recodification and uniformization of the informatics basis. Therefore we have reached to an essential data-base about the Agricultural Advices for the DDR which will enable the preservation of this so valuable spoil which must be kept. The impact of the organization of a National Service concerning modern Agricultural Advices correctly structured can be evaluated on a technical, social and economic point of view. These services offer a correct cover of the enemies concerning the main farming products all over the country, assuring a real support to the farmer in what concerns the need of a phytosanitary intervention; they also allow to elaborate at the end of every year the phytosanitary balance both in a regional and national level as well as know the phytosanitary reality of our country.