Abstract
Agriculture is the main consumer of water in the Ebro Valley. The excessive pressure suffered by this resource, together with the need to rationalise its use, makes it vital that we have a knowledge of the demand curves for water on the part of agriculture, as well as their elasticities. The objective of this paper is to construct these curves, both for the Ebro Valley as a whole, as well as for five of its regions, using the economic rent obtained from the use of irrigation as a starting point. The results demonstrate the presence of seven differentiated pieces in the demand curves. Similarly, they show the existence of significant differences between the regions and the need for the urgent modernization of the irrigated areas that are associated with around the 50% of the total consumption.

Keywords
Water demand, economic rent, elasticity, irrigation, use efficiency.