

Wild Flowers in Urban Spaces

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Abstract

Research into wild flowers with a view to their use in urban spaces has not been undertaken in Portugal, considering their importance in ecological design. The Mediterranean climate involves the seasonality of air temperature and precipitation, which leads to a hot drought period in summer and wet period in winter. The reintroduction of native plants reduces the cost of establishing and maintaining as the sustainability green spaces. So, the aim of this work focuses on the behaviour of the native meadow in a young olive orchard, evaluating the floristic composition and its variation along the study. Three years of field experiment were performed comprising two treatments: the mobilized, in which the management of the plants was controlled through the mobilization, and the native meadowland covering until the beginning of the dry period. After that, the plants were cut off by a rotary mower. The observation of the development of the land covering was made with the help of floristical survey during the spring. The results observed in green cover, show a tendency to the increase of monocotyledonae in relation to dicotyledons.

Key words: meadowland, floristic composition, wild flowers

Introduction

The Portuguese research into this subject is non-profitable and there are no nurseries that produce mixtures of wild flowers, that can be used in meadows as an alternative, to the traditional lawns with high costs of maintenance (mowing, destruction of weeds, application of fertilisers), in some situations.

In zones with a Mediterranean climate, the amount and timing of rainfall is often the limiting factor in choosing the species, and the choice being those preferring dry land to meadowland. This climate involves the seasonality of air temperature and precipitation, which leads to a hot drought period in summer and wet period in winter. The wild flowers have a variety of seasonal characteristics (colour, texture, height) and they may grow in a variety of substrate with low nutrient soils, whereas cultivated plants usually need a substrate of relatively fertile top soil. Their use in green spaces is very important as they contribute to reduce the cost of establishing and maintaining these areas (Emery, 1986).

The landscape architects, on the conception of sustainable green spaces, must be presented two fundamental principles: minimise the impact on the environment and minimise the use of a limited natural resource (Florgard, 2000).

In order to have some information about the behaviour of native meadows it was decided to explore one of the lines of investigation of an established project in a young olive orchard. It was expected to have some information that it would be applied in landscape design which could no longer be separated from the aesthetic and ecological concepts.

The use of wild flowers in urban landscape is not a question of a good or bad intervention - it is a question of quality and economic thinking (Steidle-Schwan, 2002).

Thus the percentage of green cover as the most important families present in the floristic composition of a native meadowland, during the period of work, is the aim of the study (2002-2005).

The results, which are presented, belong to a large project where researchers (landscape architects, biologists, agronomists and soil agronomists) had the opportunity to work and discuss their points of view.