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Use of the corners of centre-pivot irrigation for tree installation

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The corners of centre-pivot irrigation systems are usually underappreciated areas on farms. Located on agricultural soils and close to irrigation, these areas are many times left unproductive. However, the installation of trees on such areas could be considered as a good strategy for farm production diversification, increase biodiversity, reducing evapotranspiration on the surrounding areas, and increasing soil water infiltration capacity, among other advantages associated with silvoarable agroforestry systems.

In Portugal, some farms are already taking advantage of these areas to install a diversity of tree species. The chosen species have been: fruit trees, high quality wood trees and fast growing species for wood biomass (particularly Eucalyptus globulus). Due to the characteristics of these areas, tree growth will be expected to range from average to high tree quality classes. Nonetheless, the choice of tree species should take into consideration the possibility of waterlogging and other soil features (such as texture), and the crops cultivated on the centre-pivot irrigation area. The latest is the decisive point for the number of trees to plant by and the choice between deciduous or hectare persistent, once these two determinate light availability for the main crop.



Figure 1. Corner of centre-pivot irrigation system being utilized.

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