

PROTECTED CULTIVATION AND ADAPTATION TO CLIMATE CHANGE

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The increased lack of irrigation water in Mediterranean countries along with the need for the rational use of irrigation water in greenhouse production, led the research team in constructing a prototype environmentally friendly greenhouse for fruit and vegetable production, under limited water supply which will be the case in the next decades that are following, at the above mentioned area. The friendliness of this cultivation method which is introduced here, is verified not only by the fact that the prototype greenhouse uses renewable energy source for heating (such as shallow geothermal energy), but also by adapting a system that retrieves part of the water vapour of the greenhouse air, collects it and reuse it for irrigation purposes, after condensation. In addition, other methods concerning decreased inputs in greenhouse production will be followed. These are the collection and reuse of rainwater, the use of closed type hydroponics, the cover of the openings with screens and last but not least, the total climate control automation.

Keywords: closed greenhouse, climate change, water preservation.



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