



Thème 4 poster : Techniques des productions végétales et animales

Improvement of greenhouse production technique by geothermal energy

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Abstract

Agricultural production in greenhouses has been good in the valley of El Oued but in the winter period the temperature in the greenhouses is between 4 and 8 °C during the night and it is above 30 °C during the day. This large difference in temperature has a negative effect on the plant and on production. Some farmers have used small gas burners to heat greenhouses, but this technique is far from successful because the flame consumes oxygen from the greenhouse and stifles plants. In our work we propose an ecological and environmental technique that can reduce this temperature difference during the night. This technique consists in using the geothermal energy. The earth temperature is always constant and which is between 20 and 25 °C to a depth of 3 meters. This technique uses a plastic pipe and a vacuum that sucks warm air (20 and 25 °C), fresh air and oxygenated air from the outside to the inside of the greenhouse and leaves the plants in a favourable environment for germination and production.

Key words: environmental technique, warm air, oxygenated air, plants, temperature.