

We Effect Palestine

Water Conservation Cases

Applied Research Institute – Jerusalem (ARIJ)

An Article in This Week In Palestine Journal titled ‘Adopting Hydroponic and Wicking Agro Food Production Models in Palestine’ (pages 32,33 and 34):

www.arij.org/files/arijadmin/adopting_hydroponic.pdf

Home gardens:

- www.972mag.com/palestinian-home-gardens-coronavirus/
- www.arij.org/success-story/mariam-spots-a-bright-smile-as-she-is-looking-at-her-garden/
- www.arij.org/success-story/success-story-3/

Economic and Social Development Centre (ESDC)

Environmental awareness for younger generations: A demonstration environmental site of “**green model**” about hydroponics had been developed for the benefit of Tubas secondary girls school,. The technique depends on irrigating using water from fish aquarium to irrigate house garden plants planted in pipes which the water pass through, where this water is a fertilizers substitute. Pumping water is done through a pump supplied with electricity generated by small solar cell “clean energy”. Student and their teachers had prepared introductory bulletins and disseminate them to circulate the model to different parties. The model could supply humble amounts of fresh herbs, tomatoes and strawberry and could be good model for planting in small places and buildings. Hundreds of students and other visitors were exposes to the model. The model also was an important contribution for the mentioned school to get an international certificate beside having number of prizes. The Palestinian T.V was interested in this model and broadcasted a journalist report about it as well.

Another case about enhancing **the ecological farm** of Al Aqrabaniah women society, where this site was established many years ago and the women coop had success in implementing the ecological farming technique which depends on special way to prepare the soil and planting technique depend on diversifying the kinds of plants and also do not uses any chemicals, the ESDC- We Effect project had contributed to develop the farm over the time and supply technical support. Also in light of water shortage, the women society was supported with “water harvest technique” that collects rain water from the roof of the greenhouses and gather it in tanks. The fresh vegetables produced is characterized by being chemical free, and is sold with higher prices. Hundreds of farmers and agronomist students were exposed to the site.

One important project is **hydroponic production**: this project was implemented by ESDC and funded by EU. the project is specialized with producing **barley** for livestock feed. Two systems were produced: large scale and small scale. The small scale was directed toward livestock breeders whom own 5-15 livestock and the large scale for the ones whom own big number of livestock. Advanced techniques is used to grow up the barley inside the units to guarantee high quality and safe barley production as “green fodder”. The green barley is known for containing

high percentage of protein, which means high nutrient for the livestock. This is reflected for livestock mothers with good health, higher percentage of born sheep. Also the large scale system was implemented as fodder for the poultry, where it proved producing higher quality eggs since it has higher percentage of Kerotene, which increased the consumers demand for it.

And last ESDC implemented planting "**Panicum**". Panicum plant is a fodder plant used to feed livestock. It contains a high percentage of protein. It is used as a less expensive and better alternative to fodder and at lower costs in its cultivation. It is still not widespread in Palestine. This plant can be planted in high salinity environment, and can be irrigated with retreated water. And since the Arab Construction Project Association is working on the cultivation of Panicum in order to feed its cow farm, the ESDC has expanded the cultivation area of the Panicum crop, and then work has been done to rehabilitate the harvesting and cutting machine of the Panicum crop, as the machine works perfectly and is connected to an agricultural tractor. It is offered to cows as fodder in its green nature, or it is wrapped in nylon rolls and left for a while to turn into silage. The development of Panicum cultivation has received a wide local and Arab echo because of its future prospects for reducing the cost of fodder needed for livestock raising, as the livestock sector suffers from a decline due to the high cost of fodder and changing climatic conditions.