

The aim of the study was to evaluate efficiency microwaves in the control of the different life stages of the *Ephesia cautella* in the energy levels 200, 400 and 600 watt and the exposure periods of 5, 10, 15, 20 and 25 seconds in order to control the number of insects in the used dates and their control as following: effect of microwaves in the life of the insect. microwave had a significant effect on killing rates for 24-hour eggs with the highest killing rate of 100% at 15, 20 and 25 sec of power level of 600w, and for 48-hour eggs the kill rates were 100% at 20 and 25 sec and Power 600w. The rate killing of 1st larval instar was 100% at the energy level of 600 W and exposure of period 15, 20 and 25 sec while at the energy level 400 W reached 100% only exposure of period 25 sec. Reached highest rate of killing of insect larvae in the fifth (final) instar was 96.67% at the power level of 600 w at exposure of period 25 sec and with significant differences with the control treatment which was 0% microwave had a significant effect on increasing duration of larval stadium which long duration larval stadium in increasing to exposure of microwaves and also affected the pupation ratio. levels of power and exposure of period effect significant in killing rate of pupa insect date moth age day and six days which reached 100% at level power 600w and exposure of period 20 and 25sec in one day age pupa while six days age pupa reached this rate of killing at 600w and period 25sec comparative with control treatment which reached killing rate 0% increased of pupation stage period with increasing of level energy and exposure period Microwaves had a high ability to effect the adults of the date moth which reached killing rate to 100% at the power level of 600 W and exposure period was 20 and 25 sec for males while at 15,20and 25 sec for power level of 600w and the period of 20 and 25 sec for power level 400w for females compared with the control treatment, which reached 0%. Abstract B The microwaves had a role in reducing rate production of eggs for adults through their affective on six-days pupa date moth The lowest rate production of eggs was 20 eggs at 600w and 15 sec while the highest rate production of eggs which reached 136.67 in control treatment .and effect in rate of eggs hatching significantly affected with the lowest percentage of egg hatching 10.48% while was reaching 90.51% was treated with control. effect of microwaves in the nutritional value of dates The results showed that the microwaves did not have a significant effect on the date components of protein and carbohydrates. The values were all neerly at the energy levels and the exposure periods used, and there was no significant difference compared with the control treatment. While these waves affected on the moisture content of the dates, where it reached 5.54% at the level of power 600w and exposure of period 25 sec compared with the control treatment amounted to 7.20%. Effect of microwaves in the fungal content of the dates infected with the insect Microwaves have a significant impact on the reduction of fungal contamination and the quantity from quality of samples of used date, The number of fungal colonies isolated from infected dates and stock for two weeks after the treatment (4) colonies at power level 600w and exposure of period 25 sec compared with control treatment which number of colonies reached (26) colony, while the period of storage was four weeks for treatment waves was the number of fungal colonies at the level of 600w (5) colonies compared with the control treatment, which reached the number of colonies (38) colony Which is due to different types of fungi, such as *Aspergillus niger*, *A.flavus*, *Alternaria alternate*, *A.fumigatus*, *Curvularia lunata*, *Penicillium citrinum*, *P.chrysogenum*, *Geotrichum.sp*, *Fusarium solani*, White sterile mycilia, increasing energy levels and exposure period to waves that provided some types of protection for dates of fungal infection