

**D. Apple:** **Spider mite: *Tetranychus urticae* Koch**  
**Dr. Gamal Abdel Mageed**  
 Head of Acarology Dept., Plant Protection Res. Institute, ARC. Giza, Egypt

The tetranychid mites are plant feeders of considerable economic importance, attacking fruit and vegetable crops. They usually feed on the leaves injuring the epidermis and resulting in blotching stippling or bronzing and sometimes accompanied by leaf fall. Some of the species are most specific but the majority of is polyphagous and has a wide range of hosts. Severe mites feeding result in economic reduction in the quality and quantity of crop production.

A complete randomized block design with four replicates (six trees/replicate) was used. Two concentrations, 1000 cc (1 %) and 2000 cc (2 %) per 100 liter of water, from the product, GC-Mite 20 % E.C were tested in each of the four experiments. Sample size was 80 leaves from each treatment (20 leaves per replicate). Weekly sampling was collected randomly after spraying. A pre-count was taken just before spraying at each replicate. Lower surface of the leaves was examined carefully, alive mites were counted and recorded. All sprays were applied by using a motor sprayer of 600 liters capacity. Percentage of reduction in all motile stages was estimated according to the equation of **Henderson and Tilton (1955)**.

## RESULTS and DISCUSSION

Efficiency of the natural product, GC- Mite 20% EC, at the recommended concentrations 1% and 2%, on the motile stages of the spider mites, *Tertranychus urticae* infesting apple was evaluated under the Egyptian environment.

Data in table (1) and fig. (1) indicated that the GC-Mite, at the concentrations of 1 and 2 %, gave 84.3 and 91.8 % reduction, respectively in the population of *T. urticae* on apple trees.

Table (1): Evaluation of different concentrations of GC-Mite 20 % on motile stages of the spider mite, *Tetranychus urticae* Koch on apple trees in Egypt

Treatment	Rate of application	Pre-count/ 80 leaves	No. of motile stages / 80 leaves and % reduction after treatments								Average of Reduction %
			One week		Two weeks		Three weeks		Four weeks		
			No.	%	No.	%	No.	%	No.	%	
T1	1 %	896	143	85.55	152	85.04	191	83.94	221	82.73	84.31
T2	2 %	923	71	93.03	83	92.07	104	91.51	126	90.44	91.76
Control	-	784	866	-	889	-	1041	-	1120	-	

**Fig. (1): % reduction in *Tetranychus urticae* population on apple and peach trees when sprayed with GC-Mite 20%**

