Effects of heat unit (GDD) on flowering and quantitative and qualitative characteristics of cucumber hybrid cultivars

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The effect of 6 planting dates, at 15 days intervals from 24 May to 7 Aug. 1994 on the formation of the male and female flowers of 5 cucumber hybrid cultivars (Super Hylares, Super Dominos, Super-V-82, P.S.141591 and Beit Alpha) were evaluated in a strip plot experimantal design with four replications.

The conclusion of the research is as follows:

1. The heat unit from planting date to formation of the male and female flowers for all cultivars, were $46^{\circ c}$ and $54^{\circ c}$ at the first planting date (24 May. 94) Super V.82 produced most ,male flowers and P.S.141591 produced most female flowers among all cultivars at intervals GDD 460 to 620 and 540 to 800°c.

2. Fruit maturity and harvesting time for all cultivars began from 630 GDD and the most fruit were produced and harvested in two cultivars at GDD intervals between 630 to 880°c.

3. There are direct correlation between number of flowers and yield. The best yield obtained from two cultivars, Super-V-82 and P.S.141591, which produced 50.99 and 49.25 t/ha; they had significant difference at 1% level.

4. The highest yield was obtained by the first planting date. Average temperature of flowering periods was 26°c, that was the suitable temperature in this experiment.

5. The length and weight of plants of the Super-V-82 and P.S.141591 cultivars, showed highly significant differences, comparing to other levels at 1% level which had direct relation with yield.