

**Table 1.** Determination of the copies of ctDNA per chloroplast in pea leaf cells

Leaf length (mm)	ctDNA		Chloroplasts per cell	Copies ctDNA per chloroplast
	%	copies per cell		
4.0	8.5	6,523	24	272
5.5	8.5	6,523	35	186
7.0	11.9	9,564	47	203
10.0	11.9	9,564	55	174
11.0	8.5	6,523	64	102
12.0	9.7	7,543	50	151

Leaf length is obtained from Fig. 2; % ctDNA from Lamppa and Bendich (1979). These values have been converted to the copies of ctDNA per cell as follows:

- a) (fraction of ctDNA/cell) (C + daltons of nuclear DNA) = C,  
 b) (C)(1/90 × 10<sup>6</sup> daltons) = copies of ctDNA/cell,

where C equals the daltons of ctDNA/cell. A diploid value for nuclear DNA is employed. A tetraploid cell would contain twice the number of ctDNA molecules. Figure 5 shows nuclear DNA amount does not change during leaf development. Approximate pea ctDNA size 90 × 10<sup>6</sup> daltons, is from Kolodner and Tewari (1975). Data for chloroplasts/cell are given in Fig. 2