SHORT SCIENTIFIC NOTES

Crystallographic Data of DL-Leucyl-glycyl-glycine

As a part of a programme to study crystal structure and conformation of simple peptides, we have undertaken structure analysis of the tripeptide DL-Leucyl-glycyl-glycine ($C_{10}N_3O_4H_{17}$).

Long needle-shaped crystals of DL-leucyl-glycyl-glycine were obtained from an aqueous solution of the substance by slow evaparation. The unit cell dimensions and the space group were determined from oscillation and Weissenberg photographs taken about crystallographic axes using CuK_α radiation. The crystal data : (1) crystal system-monoclinic Lattice parameters, $a = 12{\cdot}18$, $b = 11{\cdot}43$, $c = 9{\cdot}64$ Å, $\beta = 104{\cdot}50°$, density (measured)–1·250°, density (Calc)–1·255, Molecules per unit cell $Z = 4$, Systematic absences OkO : $k = 2n + 1$, hol : $l = 2n + 1$, Space group $P2_1/c$ (No. 14).

Three-dimensional intensity data have been collected and the structure-analysis is in progress.

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Record of Lunate Fly, *Eumerus* sp. (Syrphidae : Diptera) on Potatoes from India

While harvesting potatoes (September, 1974) at Central Potato Research Institute, Simla, some tubers were found infested with maggots which were reared in the laboratory. Flies emerged from these tubers after about 15 days and these were identified as species of *Eumerus*.

Lunate flies (lesser bulb flies) belonging to genus *Eumerus* are well distributed over many parts of the world[1] and these infest a variety of bulbs[2-3] and tubers including potato[4]. In Germany 5% loss in potato crop has been reported by this fly[5]. The infested portions of the plants consist of slimy decayed tissues and usually infested with diseases like bacterial rot[6], basal rot, Fusarium[7], etc. From the existing literature on insect pests of potato crop, it seems that *Eumerus* sp. has not so far been reported from India.

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Division of Entomology,
Central Potato Research Institute,
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Aneuploids in *Trigonella foenum-graecum*

The fodder and condiment crop *Trigonella foenum-graecum* L. has the diploid chromosome number $2n = 16$ and the artificial autotetraploids, developed in this university has the $4n$ number 32. Three autotetraploid strains are superior in vegetative yield compared to the diploids and other autotetraploid strains. This note reports on the occurrence of aneuploids in the autotetraploid populations.

The pollen mother cell analysis was done on the floral buds fixed in acetic alcohol (1 : 3) and squashed in acetocarmine. Pollen fertility was based on stainability with acetocarmine.

Thirteen hypertetraploid plants were found in the autotetraploid populations in the years 1972–73 and 1973–74. The hypertetraploids were shorter than the diploid and the autotetraploid plants and had whitish and drooping leaves. They had internodes almost equal to those of the diploids but fewer than those of the autotetraploids. They had fewer branches, shorter leaves and pods and fewer seeds per pod than the diploids and the autotetraploids.

The chromosome number in the hypertetraploids ranged from 33 to 36. The pollen mother cells showed different chromosomal associations at metaphase-I (Table I). Configurations higher than the quadrivalent were not observed. The multivalent frequency of the hypertetraploids was higher than that of the autotetraploids. Distribution of chromosomes at anaphase-I was irregular and showed laggards. Pollen grains of the hypertetraploids and the autotetraploids were almost equal in size. Pollen fertility of different plants ranged from 48% to 92%.