

of the broken chromatid. The possible contribution of the observed chromatid breakage to structural changes within the chromosomal complement will require further analysis.

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JUNE LEE BIEDLER  
LLOYD J. OLD  
DONALD A. CLARKE

Division of Experimental Chemotherapy,  
Sloan-Kettering Institute for Cancer Research,  
Sloan-Kettering Division,  
Graduate School of Medical Sciences,  
Cornell University Medical College,  
Rye, New York.

<sup>1</sup> Bayreuther, K., *Nature*, **186**, 6 (1960).

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## GENETICS

### Effect of Kinetin on the Fertility of some Strains of *Neurospora crassa*

In experiments with *Neurospora crassa*, some strains when crossed are highly infertile and, therefore, further genetic analysis is difficult. This communication reports the effects of an addition of kinetin (6-furfurylamino-purine)<sup>1</sup> on the fertility of some strains of *Neurospora crassa* which are normally highly infertile.

The strains used were all derived from the Abbot and/or Lindgren wild-types<sup>2</sup> and had become infertile as a result of either ultra-violet irradiation (designated A in Table 1) or of selection for ascospore size (Lee, B. T. O., unpublished results) (designated B in Table 1).

Crosses were set up between various strains of the A and B series on a medium favouring sexual reproduction with kinetin (0-10 p.p.m.) added. The fertility was assessed after incubation for 15 days at 25° C. Each treatment was replicated five times. The fertility was measured by counting the number of perithecia per slope and ascospore production assessed on an arbitrary scale 0-10, in which 0 is equivalent to a complete lack of ascospore production and 10 corresponds to normal wild-type production of ascospores. The results are given in Table 1. It is

Table 1. PERITHECIAL AND ASCOSPORE PRODUCTION WITH ADDED KINETIN

Cross		Kinetin (p.p.m.)					
		0.0	0.5	1.0	2.0	4.0	10.0
A 13 × A 18	P*	64	122	128	154	146	152
	A†	2	2	3	3	4	3
A 12 × A 13	P	60	104	116	102	122	106
	A	2	4	4	4	4	3
A 19 × A 14	P	12	96	154	252	206	212
	A	1	3	4	6	5	5
A 21 × A 16	P	26	80	72	104	92	88
	A	1	4	4	5	4	4
B 17 × B 19	P	4	82	104	84	158	196
	A	0	2	2	2	4	4
B 21 × B 14	P	8	16	24	14	22	18
	A	1	1	1	1	1	1
B 1 × B 3	P	20	34	106	66	74	86
	A	1	2	3	1	2	3
B 1 × B 7	P	5	76	94	106	118	126
	A	0	2	3	3	4	3
B 16 × B 8	P	8	76	108	92	106	122
	A	0	2	3	2	4	4

\* P = No. of perithecia produced per slope (mean of 5 replicates).  
† A = Estimated ascospore production per slope (mean of 5 replicates).

evident that the perithecial production in eight of the nine crosses used is greatly increased by the presence of kinetin. Estimates of ascospore production follow a similar trend. It is notable that kinetin had no effect on the cross B 21 × B 14.

It is thought that this effect of kinetin on the crossing behaviour of *Neurospora crassa* might assist in the study of many strains the infertility of which on crossing has hitherto prevented a genetic analysis.

BARRY O. LEE

Botany School,  
University of Melbourne.

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### Haploidy in Jute (*Corchorus olitorius* L.)

HAPLOIDY was first reported to occur in *Datura stramonium* by Blakeslee et al.<sup>1</sup> Since then, haploids occurring spontaneously or induced under artificial conditions have been recorded in many flowering plants<sup>2</sup>. As far as we are aware, haploidy in *Corchorus* has not yet been reported. Datta<sup>3</sup> reported a case of

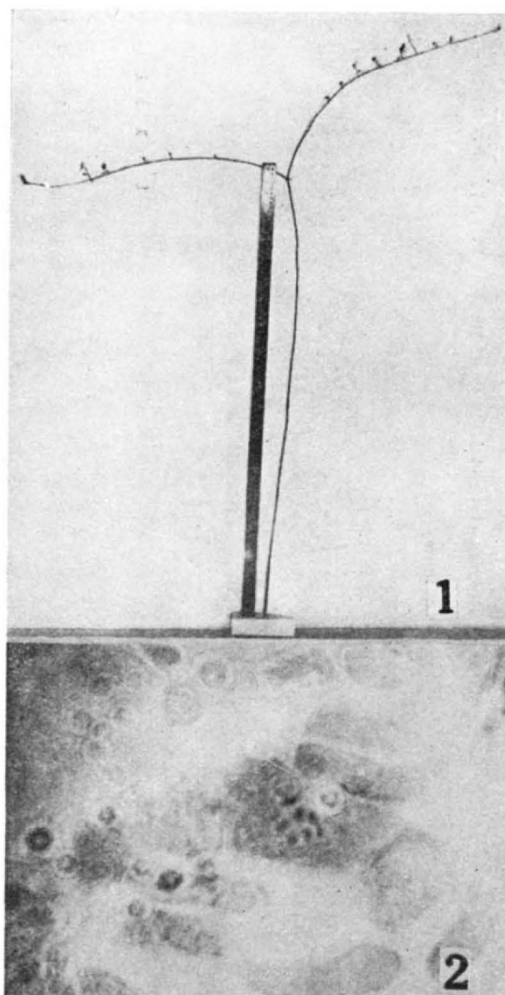


Fig. 1. The haploid *Corchorus olitorius* (JRO-632) plant. ( $\times 1/14$ )  
Fig. 2. Seven somatic chromosomes in the root-tip cell. ( $\times 1,700$ )