

TABLE 2  
A SUMMARY OF THE CHARACTERISTICS OF *mus* MUTANTS

| Mutant                         | Location<br>(L.G.) and<br>allele<br>designation | Sensitivity <sup>a</sup> to |         |          | Sensitivity to medium<br>containing<br>MMS | Growth on<br>minimal<br>medium | Meiotic<br>defect in<br>homozygous<br>crosses          | Spontaneous<br>mutation<br>frequency |
|--------------------------------|---|-----------------------------|---------|----------|--|--------------------------------|--|--------------------------------------|
|                                |   | UV                          | X-rays  | MMS      |  |                                |  |                                      |
| <i>mus-(SC3)</i>               | (VI) <i>mus-12</i> 2/                           | NS                          | NS      | NS       | S(2×)                                      | NS                             | poor   | none<br>low (0.02×)                  |
| <i>mus-(SC28)</i>              | (I) <i>mus-13</i>                               | NS                          | NS      | NS       | S(2×)                                      | NS                             | poor   | none<br>N.D.                         |
| <i>mus-(SC13)</i>              |   | S(1.5×)                     | NS      | S(1.6×0) | NS   | NS                             | poor   | none<br>normal? (0.45×)              |
| <i>mus-(SC15)</i>              | (V) <i>mus-12</i>                               | NS                          | S(2×)   | NS       | S(6×)                                      | NS                             | normal   | none<br>high (12.7×)                 |
| <i>mus-(SC10)</i> <sup>b</sup> | (II) <i>mus-14</i>                              | S(1.9×)                     | S(2-3×) | S(9×)    | S(8×)                                      | S                              | normal<br>sterile<br>abortive<br>spore<br>numbers high | high (10.8×)                         |
|                                | (III)   |                             |         |          |  |                                |  |                                      |
|                                | (VI)  |                             |         |          |  |                                |  |                                      |
| <i>mus-(SC25)</i> <sup>a</sup> | (I) <i>mei-3</i>                                | S(1.5×)                     | S(2×)   | S(4×)    | S(8×)                                      | ND                             | normal   | barren<br>normal? (1.7×)             |
| <i>mus-(SC29)</i> <sup>c</sup> | (I) <i>mei-3</i>                                | S(2.2×)                     | S(2×)   | S(10×)   | S(15×)                                     | ND                             | normal   | barren<br>normal? (1.4×)             |

<sup>a</sup> Conidia were treated as described in Materials and Methods. NS, not sensitive; S, sensitive; ND, not determined. Data in parentheses indicates the magnitude of increase as compared to the wild-type.

<sup>b</sup> *mus-(SC10)* represents a translocation since it shows linkage to *arg-5* (LGII), *Trp-1* (LGIII) and *ad-1* (LGIV) (see DeLange and Mishra, 1981).

<sup>c</sup> Allele of *mei-3* (DeLange and Mishra, 1981).

*mus-(SC13)* ascospore (0.4 cm/day); several at a wild-type rate. Co- not possible to ascertain for MMS sensitivity.

Many *mus-(SC10)* i medium. Similarly, *mu* were only assumed af *mus-(SC15)* among all *mus-(SC29)* produced colo growth on sorbose-free linked to *sn* and have, sensitivity was express growth curves). Histio *mus-(SC10)*, i.e. MMS male parent, in all 17, *Utilization of DNA*, starved of inorganic P nucleases, phosphatase tion of exogenous DN and Nelson, 1977). Sin these DNA salvage enz of the present MMS-s pathways. When the se DNA as the only sour The *nuc-1* and *nuc-2* phosphate, but not on me indicate that the MM enzymes of the DNA *Metotic defects*. *M* are fertile in homozyg Table 2). The infertility been reported previou pore abortion found i that this mutation is groups II, III and *mus-(SC10)* could not

### Discussion

In *Neurospora*, M (Schroeder, 1975; Ka comparison of the lin