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1. Location of fl_2 .

The study of the progenies of the backcrosses (see News Letter, 36, p. 91) confirmed the linkage between genes la and fl_2 , and Tu and fl_2 . The results obtained were as follows:

| <u>Genes</u> | <u>Parental</u> | | <u>Non-parental</u> | | <u>Total</u> | <u>Percent recom- bination</u> |
|--------------|-----------------|------------|---------------------|---------------|--------------|------------------------------------|
| | | | | | | |
| $fl_2 la$ | 252 | 234 | 9 | 6 | 501 | 3 |
| | ($fl_2 +$) | ($+ la$) | ($+ +$) | ($fl_2 la$) | | |
| $fl_2 Tu$ | 97 | 88 | 38 | 42 | 265 | 30 |
| | ($fl_2 +$) | ($+ Tu$) | ($+ +$) | ($fl_2 Tu$) | | |

Thus gene fl_2 appears really to be located on the short arm of chromosome IV, very near to la .

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2. Location of rp_x (sensitivity to Puccinia Sorghi).

The study of the progenies of the backcrosses comprising genes rp_x , ws_3 and lg_1 , provides the possibility of defining accurately the situation of the locus rp_x on chromosome II (see News Letter 35, p. 134).

The backcrosses with $ws_3 rp_x$ resulted in a progeny of 934 plants, of which 196, or 21%, were recombinant.

The three-point test (ws_3 , lg_1 , rp_x) provided a progeny of 332 plants, among which were counted:

| | | | | | | | |
|----|----------------------------|--------|-----|----------|-----|----------|------------|
| 65 | recombinants between | ws_3 | and | rp_x , | or | 19.5 | per cent |
| 40 | " | " | " | lg_1 | and | rp_x , | or 12 " " |
| 25 | " | " | " | ws_3 | and | lg_1 , | or 7.5 " " |
| 2 | double recombinant plants, | | | | | or 0.6 | " " |

Thus it seems possible to locate the locus rp_x on the short arm of chromosome II, between genes lg_1 and gl_2 and more or less at the same distance from both.

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