with \( Y \) in 6L and \( G_1 \) close to the centromere either in 9S or 9L.

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6. **Linkage of \( oy \).**

The data listed below come from crosses of \( oy \) \( R \) \( k10/\) \( Oy \) \( r \) \( k10 \) females with \( oy \) \( R \) \( k10 \) males. Two types of kernels were produced, \( R R R \) and \( r r R \). The \( r r R \) class is more frequent because of preferential segregation. There is no evidence of preferential segregation of \( oy \) or of linkage of \( oy \) and \( R \).

\[
\begin{array}{ccc}
R R R & Oy & oy \\
138 & 140 & \\
228k3 & x & 23063 \\
R r r & Oy & oy \\
399 & 407 & \\
\end{array}
\]

Because of the negative results obtained above, a further test of the location of \( oy \) on chromosome 10 was made. Plants trisomic for chromosome 10 were crossed to an \( oy \) stock and the trisomic \( F_1 \)'s were used as male parents in the backcross to \( oy \). Five different male parents gave ratios of green to oil yellow as follows:

\[
\begin{array}{ccc}
& Oy & oy \\
2h610-4 & 59 & 21 \\
2h610-11 & 56 & 22 \\
2h610-13 & 190 & 110 \\
2h612-12 & 42 & 23 \\
2h612-15 & 70 & 27 \\
\hline
417 & 203 \\
\end{array}
\]

The total of 417 green to 203 oil yellow indicates that \( oy \) is located on chromosome 10, as was reported by E. G. Anderson (ANL 25, 1951). Although abnormal 10 is present in the trisomic stock, no distortion of ratios is expected since male gametes were tested. A stock of \( du \), which is 20 units proximal to \( R \), was obtained from H. H. Kramer and will be crossed to \( oy \) for more precise location. The information given here indicates that \( oy \) is either in 10S or is close to the centromere in 10L.

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