
1. Occurrence of prototrophs.
2. Not transformation via medium.
3. $BM \times PTR$; $BM \times RT$: indication of linkage and haploid inheritance.
4. Rarity of $B^-$ in $BOC \times PT$, $B'O'C \times TLB$.
5. Rarity of other recotypes compared to prototrophs; in some cases.

Thus are slight indications of linkages which interfere with the random distribution of types:

$$R_{1} \rightarrow P \text{ or } T$$

$$\beta \rightarrow \phi \text{ or } E$$

$$B \rightarrow L.$$

Such a simple system will interfere with the occurrence of certain types drastically. No frequent data is needed + this depends on increasing rate considerably more: spontaneously mutate so that single-gene transfers can be studied effectively. Use, e.g., $TLB; R_1 \times BOCR_2$. 


Rarity of $B^-$ compared to $B^+$ in $\phi C \times T \rho$.

<table>
<thead>
<tr>
<th>$B^-$</th>
<th>$B^+$</th>
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<tbody>
<tr>
<td>$\phi^-$</td>
<td>$\phi^+$</td>
</tr>
<tr>
<td>$C^-$</td>
<td>$C^+$</td>
</tr>
<tr>
<td>$T^+$</td>
<td>$T^-$</td>
</tr>
<tr>
<td>$\rho^+$</td>
<td>$\rho^-$</td>
</tr>
</tbody>
</table>

$B^+$ linked with $\phi^+ C^+$ or
or

yet $B^- \rho$ obtained.

$B^+ \eta^- R \rightarrow + + R$.

$R^+$ linked with $\rho^+$ or $T^+$.
\[
\begin{array}{c|c|c}
| a_1 & a_2 & \pm b_1 & \pm b_2 \\
| a_1 & a_2 & \pm b_1 & \pm b_2 \\
\hline
\end{array}
\]

- \(a_1 \to a_2\) 
- \(a_1 \to b_1\) 
- \(L^\phi\) 
- \(L^\perp\)

- \(L\) linked to \(B, \phi, \text{ or } C\)
- \(L^\perp\) linked to \(B^+\)
- \(B^+\) linked to \(L^-\)
- \(B^-\) linked to \(L^+\)
Blended with P or T.
B linked with φ or c
B linked to L???

\[ \text{try } Y40 \ (\text{B}4\text{M}R) \times \text{T}L \ 
\rightarrow \ 
\times \text{L} \beta_1 \]

For wild, require no linkages.

<table>
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<th>B1 +</th>
<th>B1 +</th>
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</thead>
<tbody>
<tr>
<td>B</td>
<td>7</td>
<td>T</td>
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<tr>
<td>T</td>
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<td>L</td>
<td>20</td>
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<tr>
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<tr>
<td>C</td>
<td>5</td>
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</table>

There will be a disproportionate excess of \(x^-\) if \(x^-\) is linked to any of the exciting + alleles. If rates can be established \(\Rightarrow\) sp or a non-linked plagz resistance established, the recombination frequencies of single genes can be studied. If \(x^-\) is linked to \(y\), there will be a deficiency of \(x^-\) types, and of \(x^-3\) - recotypes.