

### 3. Gene order in the vicinity of the P locus, chromosome 1.

Emerson (1939, Genetics 24) established the order  $ms - 1.7 - ts_2 - 1.3 - P \rightarrow br$ . Hayes (1938, M.G.C. News Letter) placed  $zb_4$  in chromosome 1 by showing 31% crossing over with brachytic, 28% with fine stripe, and 7% with the P locus. Since P is distant from br and f, Hayes' data suggested that  $zb_4$  was between P and br, and thus proximal to P.

Anderson (1941, Genetics 26) located translocation 1-2b (15.44) on the opposite side of P from  $ts_2$ , about 3.8 units proximal to P.

The following results from this laboratory show that  $zb_4$  actually is distal to P. (See Table 1.)

The 1955 results of Brink clearly indicate that  $zb_4$  is on the opposite side of P from T1-2b.

The Knott and Valentine pooled results establish the order  $zb_4 - ts_2 - P$ , with distances essentially  $zb_4 - 4 - ts_2 - 3+ - P$ . The distance of 7 units between  $zb_4$  and P is in agreement with the findings of Hayes.