

2. Linkage of bt_3 and pr .

In the 1952 Maize News Letter No. 26, p. 6, Matthews reported a new character shrunken which was not allelic to sh and sh_2 . This character which occurred in PI-183644 from Turkey, resembles brittle₁, more than shrunken and has been renamed Brittle₃. It is on chromosome 5 but possibly closer to pr than is bt_1 .

A cross of $bt_3 \times a_1 sh_2$ gave 5 selfed ears with the following segregation among the colored seeds. (Since there is only about .25 percent crossing over between a_1 and sh_2 there would have been a very few sh_2 among the colored kernels). $Pr + 481$, $Pr bt_3 232$, $pr + 256$, $pr bt_3 6$, indicating about 15 percent linkage of Pr and bt_3 . Exact amount will be determined from backcross data in 1953.

Crosses will be made in 1953 between bt_3 and other bt stocks.

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