

In this population (71-241-250), a reduction in tassel branching appears to be associated with an increase in kernel row number. The data could be interpreted as support for the suggestion of Anderson and Brown (1948) that a condensation of tassel branches increases kernel row number or is involved in the origin of whorling. More extensive data are necessary.

Degree of tassel branching vs kernel row number		
Proportion of tassel branched	Number of plants	Average kernel row no.
60%	3	12.7
70%	5	12.0
75%	3	10.0
80%	8	9.75
85%	1	10.0

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5. Preliminary studies of a *Tripsacum* chromosome partially homoeologous to maize chromosome 1.

A chromosome from *Tripsacum dactyloides* carrying the Bm_2 locus in common with maize chromosome 1 but not several other loci on maize chromosome 1, including sr, br, and an, has finally been isolated on a marker gene stock of maize after repeated failures to accomplish this in the past.

As an addition monosomic (20 + 1) on maize, it failed to show any pairing associations with the maize complement at diakinesis and metaphase I in 40 plants examined from two families.

Preliminary measurements were made on the univalent as a precaution against its possible alteration before isolation as a bivalent. Morphological data on the univalent are often unreliable because of fold-backs and distortions from stretching. Previously the bivalent condition has been selected eventually, following self-pollination of such

monosomic stocks in some cases (tripsacum chromosome Tr 9 and Tr 7), or following nondisjunction in other cases (Tr 5 and Tr 13). We should identify such a bivalent for the Bm₂ chromosome from Tripsacum in the crop to be grown during the summer of 1972.

From some 250 observations at pachytene often coursing around foldbacks, the length of the Bm₂ chromosome averaged 34.7 microns. In 10 observations, the position of its centromere was located and an arm ratio of 3.5:1 determined. A terminal knob on the long arm was observed.

On a basis of the above morphological features, this Bm₂ chromosome was tentatively identified as chromosome Tr 3 in the complement of T. dactyloides. The corresponding data from Chandravadana et al. (1971) give Tr 3 an average length of 40.3 u, an arm ratio of 3.1:1 and a terminal knob in the long arm. Their idiogram representing the original complement of the T. dactyloides used in these studies is the basis for identifications in subsequent items.

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6. Preliminary studies of a Tripsacum chromosome partially homoeologous to maize chromosome 6.

A chromosome from T. dactyloides carrying the Py locus and possibly the Sm locus in common with maize chromosome 6 but not the nucleolus organizer of this maize chromosome has been isolated. A different tripsacum chromosome, at the 16th position in its complement, carries the nucleolus organizer. Chromosome Tr 16 from tripsacum is still in the process of isolation (see next item). Nothing is known as yet of its gene content relative to that of maize.

Again preliminary measurements were made on the univalent in the absence of the bivalent condition and with recognition that eventual confirmation with data on the bivalent is necessary. From 27 observations at pachytene of the Py tripsacum chromosome from 4 plants, the length averaged 41.7 u. The centromere was located in 3 observations giving an arm ratio of 2.5:1. There is a terminal knob on the long arm. This tentative data on the univalent of the Py marked chromosome suggests the fourth position in the original complement of T. dactyloides.

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