

(planting and harvesting) began, the more condensed forms would automatically take over.

Selection for higher levels of condensation would go beyond the clustering of spikes and associated traits of reduced shattering of fruit cases and triangularization of their shape in the lower more condensed positions. It would tend to force the developing spikelets out of their vertically compressed cupules as well as promote a proliferation in ranking. Condensation of secondary branches onto the main axis may represent one system for the origin of yolking and whorling, as suggested by Anderson and Brown (1948). These authors did demonstrate that condensation is a factor in the development of higher orders of polystichy. The high degree of secondary branching apparent in the teosinte tassel might reflect a potential for polystichy through such branch condensation. Furthermore, maize that is considered to lack condensation in the tassel according to Anderson, such as the northern flints and Confite Morocho, still has more condensation in the female spike than teosinte, as shown in its hybrids with teosinte. Distortions in the transition between two states of phyllotaxy may result from primordial slippage. This slippage should be expected in the maize cob under the stress of compaction, combined with a reduced nodal network.

The carry-over in maize of the condensation that clusters the spikes in teosinte would result in the multi-husk enclosure of an ear terminating a telescoped branch.

David W. Galinat  
W. C. Galinat

4. A possible inverse relation between degree of tassel branching and kernel row number in certain strains of corn.

In a small population (20 plants) of string cob sweet corn characterized by a high degree of tassel branching, an estimate of the proportion of the tassel that was included in the branching zone was made and recorded on the tassel bag at pollination time. Later at harvest time we were surprised to find that the most highly branched tassels were on plants tending to have ears with lower kernel-row numbers (see Table).

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

W. C. Galinat

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