

but for the purpose of this study cells were counted as pachytene only if they were past synizesis.

Synizesis was apparently of considerably greater duration than any of the stages compared above. It was rarely included within a single branch (bracketed by a preceding and a succeeding stage), but its duration was shorter than the interval which separates first and second flowers. The duration of synizesis is currently under study by other methods.

The long-stemmed spikelet was more advanced than the short on the average by 0.53 of the duration of diplotene-through-telophase II.

It is not known how other environmental conditions would affect the relationships suggested above or how other stocks might differ.

Marjorie P. Maguire

2. Azure A as a staining technique for maize microsporocytes, microspores, and pollen.

The azure A staining procedure (as described by De Lamater, Stain Tech. 26: 199-204) is a relatively simple technique which gives excellent DNA specific stain of maize chromosomes at certain stages. It is especially superior to acetocarmine for pollen grains (where two densely staining sperm nuclei and a diffuse vegetative nucleus are found consistently). It also seems superior to acetocarmine for microspore chromosomes. While it is inferior to or no better than temporary acetocarmine mounts for most meiotic stages, it survives autoradiographic stripping and developing procedures unscathed where carmine stains may be demolished.

Marjorie P. Maguire