

2. Cytoplasmic male-sterility.

A male-sterile stock from Texas was crossed and three times backcrossed to ten Brazilian commercial inbred lines. Inbred lines having South American flint characters, restored their fertility, showing different genetic background. While inbreds having dent, and probably the North American genetic background remained with the cytoplasmic male-sterility. This differential reaction of the inbreds opened immediate possibilities for the use of the cytoplasmic male-sterile character in commercial production. The best double-cross hybrids in Brazil are semi-dent hybrids, using two flint inbreds in one single-cross and two dent inbreds in the other. The two dent inbreds may have the cytoplasmic male-sterility, which will be covered in the double-cross by the restoring of fertility from the flint single-cross.