

4. Genetic diversity in foreian corn.

Maize stocks obtained from the U. S. Plant Introduction Garden in Glenn Dale, Maryland have been grown for three years at the Brookhaven Laboratory. Our main interest in growing these stocks was to look for new hereditary characters to add to the present "genetic pool" of corn stocks. One new, and perhaps very useful character, shrunken 3, has been isolated and described in this News Letter by David L. Matthews. Also at least one, and perhaps two cyto-sterile types have been isolated. One of these P. I. 171892 was also observed to be cyto-sterile by D. F. Jones. The other P. I. 168055 produced a progeny all male sterile from a sib pollination $ms \times +$. It is presumed to be cyto-sterile. These two cyto-steriles came from places about 150 miles apart in a part of the country with topography similar to the great plains area of this country. The two may or may not be the same cyto-sterile.

The material from Turkey was extremely diverse in type, ranging all the way from very early plants to rather late dents. All matured well on Long Island. Not only was there extreme diversity in type but selfed ears of many of the progenies were segregating for seedling characters. Of a total of 81 selfed progenies grown in 1950, there were 27 segregating for either albino, virescent, yellow green or zebra stripe. The genetics of these characters has not been determined but seed has been sent to the Plant Introduction Garden, Glenn Dale, Maryland and can be obtained from John L. Creech, Regional Coordinator for the Northeastern area.

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