

2. Chromosome-knob numbers of Peruvian coastal maize.

Chromosome-knob counts were continued on representative collections of Peruvian coastal maize. A previous report (1954 Newsletter 28:87) indicates techniques used. Results obtained until now, and expressed as mean chromosome-knob numbers per cell per collection, are distributed as shown below.

Classes of chromosome-knob numbers						
Less than	1.01-2.00	2.01-3.00	3.01-4.00	4.01-5.00	5.01-6.00	6.01-7.00
1.0						
Number of collections per class						
6	11	16	8	7	1	2

The data already accumulated are interesting in that they seem to indicate moderately high values for chromosome-knob numbers in a large proportion of coastal maize collections. Since neither *Tripsacum* nor *Teosinte* introgression in situ could be adduced to explain such high values, because of absence of those species in Peru, they might serve to indicate that most coastal maize varieties derive from introductions from *Teosinte*-introgressed areas, either in Pre-columbian ages or afterwards. Northern coast floury collections, ears of which are similar to those found in pre-inca remains, but exhibiting nowadays *tripsacoid* characters, had high chromosome-knob counts. The lowest chromosome-knob numbers were found among "Criollo" collections of the southern coast, floury types which definitely show morphological Andean-corn ancestry, and among "Jora" floury corn collections of the Central coast.

If these data on Peruvian coastal maize types are compared to similar data from Mexican corn varieties, interesting facts are immediately apparent (Mexican data from Wellhausen and Prywer's report in Newsletter 28:42, 1954). The mean class of chromosome-knob numbers for Peruvian coast collections is 2.01-3.00; for 12 Mexican varieties and 24 groups of lines, it is 5.01-6.00. The frequency distribution of Peruvian coastal maize collections shows skewness toward low knob numbers, while the frequency distribution of Mexican maize exhibits skewness toward high knob numbers.

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