DIVERGENT views are held regarding the origin of pop corn. Sturtevant (14, 15, 16, 17) considered it a distinct species and by him it was designated as Zea everta and the flint corn as Zea indurata. He classified pop corn as an “agricultural species”.

Zea everta and Z. indurata were reduced to the rank of sub-species as coordinate forms of Zea Mays L. by Bailey (2). These two botanical varieties are characterized by him as follows: “Variety everta, Bailey (Z. everta Sturt.) Pop corn. Kernels small, usually much pointed at base and sometimes at apex; containing much hard endosperm that explodes when heated; ear and plant small.

“Variety indurata, Bailey (Z. indurata, Sturt.) Flint corn. Yankee corn. Kernels hard and smooth on top due to the corneous wall; ears usually long and slender mostly brown—yellow at maturity; plant mostly of medium size, often strongly suckering.”

The difficulty of differentiating between everta and indurata is exemplified by the Eight Rowed Flint or Spanish Pop. This variety is a typical flint corn with a longer slender ear with a stalk of medium height and a grain that pops. Though inferior to present day varieties of pop corn, it clearly possesses the popping character of everta but the morphological characters of indurata. Of the Eight Rowed Flint, we shall have more to say later in this article.

What Is Pop Corn?

Flint varieties of field corn and pop corn are characterized by a corneous endosperm. What then are the distinguishing characters of the two types? Brunson and Bower (4) delineate them as follows: “All starchy corns may be placed in one of the four classes; pop corn, flint corn, dent corn and flour corn, on the basis of the distribution and relative proportions of hard and soft endosperm. Most of the varieties of pop corn and here again we find dwarf flint corns and tall pop corns.

The outstanding character of pop corn is its tendency to pop. Since this feature, as well as certain morphological characters such as the length of ear and stalk, are shared in common, they therefore go into a single group. Taxonomically considered we therefore regard them both as belonging to the same variety.

In the discussion which follows, everta is treated as a mutation of indurata. The reason for holding to this point of view is presented later in the discussion.

The taxonomic relationship of the various races of maize required further study as evidenced by the views of Anderson and Mangelsdorf as presented under the genetic aspect of pop corn. Any attempt to piece together a picture which reaches back into an unrecorded history involves a considerable degree of speculation. Further studies of the races and our geneticists will probably throw further light upon their origin and relationship which may involve further revision of their relationship.

Genetic Concept

Dr. Edgar Anderson, who has studied extensively in Central America, presents the concept of the origin of pop corn:

“The maize of the world goes into three defined races or sub-races, the extreme forms of which are very different. If these extremes were separated and had no intermediates, they would go into species and in some cases, different genera. We are confined ourselves to the kinds of techniques used by systematists studying wild grasses, of which examples are the spike with whorls of spikelet pairs in 3, and spikelet pairs in 2; pubescence of sheath; size and shape...