

Endemic Seed Memory

Hmood Gharbi Khaleefa

The majority of plants reproduce by seeds, and most of the varieties are bred and produced from seeds, despite the similarity of seeds, but they differ in their information about the environment from which they were produced, whether in their original home or production area, which expresses the conditions of their production in all its forms... and when they are transferred to a country Another is that its environmental conditions differ from the conditions of its production, which requires the plants produced from those seeds to adapt to the new environmental conditions. Apple may require resistance to harsh conditions and this appears when some of their qualities are lost or reduced from what they were in their original home Note that the loss of some of its traits means that it can adapt to the new conditions, (or it may outperform its peers in its original place of production). Which rarely happens unless the conditions of the production site are similar to the new environment. Therefore, before publishing and adopting it in the new place, those concerned with agriculture call for evaluating its performance and approving the appropriate from the inappropriate according to the standards of production quantity and resistance to conditions and diseases To simplify the idea for the reader, we come to the practical side, in a very simple example, where the okra plant. Most of our local farmers rarely leave the primary fruits to collect their seeds for successive cultivation, although their seeds are large and very rich in nutrients and hormones and all the characteristics of good seeds. Rather, the collection of seeds depends on the seeds of fruits at the end of the growing season to make them a source of seeds, which is one of the factors that have a great relationship in the deterioration of Seeds later when the latter is not Its growth is complete, its immaturity, its low nutritional and hormonal

content, its small size, in addition to a delay in its germination and a decrease in its production. Over time, we get a late and deteriorating variety preceded by imported varieties despite its production in other than our environment. After the idea became clear, we come to the storage memory of the seed and the information it contains, which was recorded in the environment in which the seeds were produced, and the accompanying physiological conditioning that was preserved by the seeds to start their new life in the new environment. The breeder himself is in front of the work of selecting for generations in order to produce a very desirable variety that competes with the importer, and those concerned only have to work on the bank of local seeds or those that have settled in the local environment to be an official and approved source. Note that most of the imported varieties in the old days have become locally known and approved by farmers and consumers.

Summary of the content of the article: Scientifically, bringing varieties of plants, whether vegetable crops or field crops, requires the scientific authorities to evaluate their physiological and productive performance first and then adopt what suits the local environment, followed by deriving plants from the seeds of those varieties by selection method and working to cultivate them for two years or more in the same environment with a comparison. The selection will interfere in the selection of distinctive plants and the adoption of their seeds, and over time, we will have a certified variety and produced according to the standards approved by the concerned authorities, knowing that this article is related to varieties and not to hybrids.