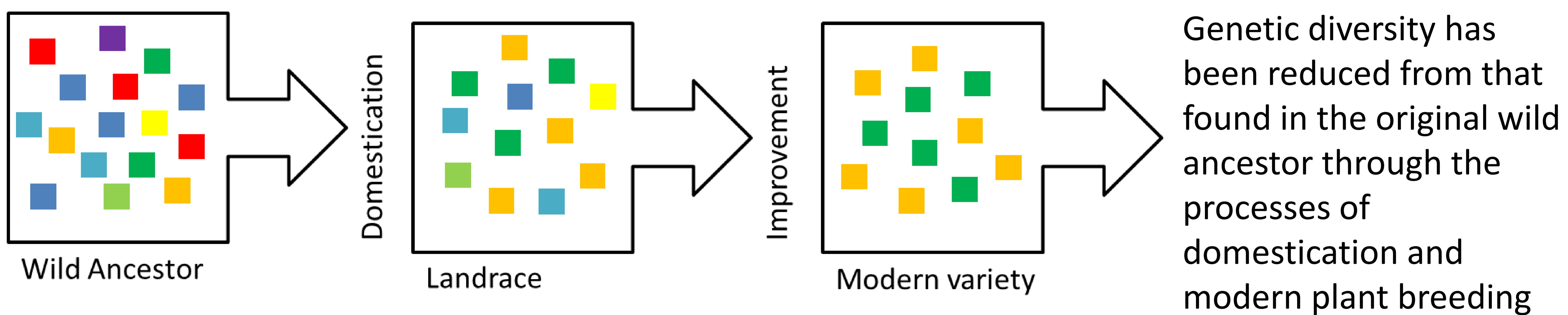


The Importance of Crop Wild Relatives in Plant Breeding and Research

Crop Wild Relatives (CWRs) are wild plant species which are closely related to cultivated types, including the original ancestral forms used by early farmers. They represent a pool of potentially beneficial genetic variation which can be used to produce improved crop varieties. Such variation has often been lost from modern crop gene pools. Environmental and land use changes mean that some populations of CWR are under threat, and it is vital to ensure their conservation.



Unlike crops, CWRs are often adapted to hostile environments – this picture shows the habitat of wild brassica species in Sicily. Useful traits such as drought resistance and nutrient use efficiency could be transferred into cultivated brassicas (cauliflower, cabbage, broccoli) from this type of material.



Warwick GRU holds a collection of almost 800 samples of wild species related to brassica, lettuce, carrot allium and other crops. Such material has already been used to develop crop varieties with resistance to pests such as the carrot fly (*Psila rosa*). Elsewhere, other uses of CWR include the production of a broccoli variety with increased levels of a phytochemical ()