As a result of cytoembryological analysis of megagametophytes of *Chondrilla* it was found out, that the plants of six species examined (*C. juncea*, *C. graminea*, *C. canescens*, *C. brevirostris*, *C. latifolia* and *C. acantholepis*) are characterised by the ability for seed reproduction by apomixis. It was discoverd that the frequency of disclosure of cytoembryological signs of apomixis considerably varies year by year and on the interpopulation level. *C. ambigua* is found to be a gamic species because it is characterised by the lack of megagametophytes with marker signs of apomixis.