ENDOSPERM — NUTRITIVE TISSUE FOR EMBRYO
II. AUTONOMOUS DEVELOPMENT OF ENDOSPERM IN ANGIOSPERMS (ANGIOSPERMEAE)

S u m m a r y

In sexually reproducing flowering plants both embryo and endosperm development is initated by fertilization (double fertilization) and in the vast majority of these plants a ratio of 2 maternally derived genomes to 1 paternally derived genom (2m:1p) is essential for endosperm formation and therefore for seed development. However, there is a group of taxa in which reproductive development is fertilization-independent. The occurrence of autonomous endosperm is well-known phenomenom in autonomous apomicts and a very rare one in amphimictic taxa. The development of fertilization-independent endosperm can be induced experimentally with the use of irradiated pollen and also through *in vitro* culture of unfertilized ovules or ovaries.

In this review the problem of genomic imprinting is discussed in the light of autonomous endosperm development without paternal genome involvement. How genomic imprinting can be overcome in the case of autonomous endosperm development in flowering plants?