

THE INVOLVEMENT OF MICRO RNA IN GENERATIVE DEVELOPMENT OF PLANTS

Summary

Precise control of flowering time and generative organs development is essential for successful plants reproduction. Recent years showed that microRNA is one of the factors involved in regulation of generative development in plants. MicroRNA are 21 bp length regulatory molecules. They are involved in target genes silencing by inactivating they expression, mostly on transcriptional level in plants. The present article describes involvement of five miRNAs: miR156, 159, 164, 167 and 172 in generative development of plants. miR156 affects transition

from vegetative to reproduction phase of development, by *SPL* transcripts degradation. miR159 works as a modulator of GAMYB protein activity. miR164 controls the presence of mRNA *CUC1* and 2 genes in individual cells, hence defines the borders between flower elements. miR167 and its target genes *ARF6* and *ARF8* are involved in flower development. miR172 is complementary to the mRNA of genes from the *APETALA2* family and affects on flower induction and development.