

FEATURES OF ARCHITECTONIC ORGANIZATION OF TREES OF TEMPERATE BELT CAUSED BY STRUCTURE AND DYNAMICS OF GENERATIVE SHOOTS DEVELOPMENT

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The purpose of the research was to identify the features of constructive organization of temperate belt trees caused by the structure and dynamics of generative shoots, as well as the degree of their participation in the construction of skeletal axes. The research subjects were 14 species of trees that make up the first layer of forest phytocenoses. Seven of them have single-season (developing for only one growing season) non-leafy or weakly leafy generative shoots. Generative shoots with an intercalary arrangement of inflorescences, strobili or cones and a fully preserved axis are formed in 3 species, generative shoots with terminal inflorescences and retaining the axial part of the vegetative zone are formed in 4 species. The early flowering dates are determined by the absence or a small number of mid-formation leaves developing under the terminal inflorescence, the location of axillary inflorescences in the proximal part of generative shoots with intercalary inflorescence and the formation of generative shoots with terminal inflorescences wintering at the pre-flowering stage. The appearance in the crown of single-season generative shoots and generative shoots with intercalary arrangement does not affect the way of growth of skeletal axes. Single-season generative shoots can form on the basis of generative shoots with both terminal and intercalary inflorescence as a result of underdevelopment of the buds of renewal. The appearance in the crown of generative shoots with a terminal inflorescence and with a retaining axial part of the vegetative zone causes a change in monopodial growth to a sympodial one. Generative shoots of temperate zone trees, as a rule, have compact inflorescences, small sizes and are confined to axes of high orders. They either do not participate in the formation of powerful skeletal axes, or participate, but only at the final stages of their formation. The peculiarities of the structure of generative shoots, their location in the crown and the shift of flowering dates to spring-early summer contribute to the preservation of the perennial axial system of trees under conditions of a short growing season.

Keywords: inflorescences, generative shoots, vegetative shoots, flowering time, trees, architectural models, skeletal axes, growth

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