

BRASSINOSTEROIDS IN AGRICULTURE, HORTICULTURE AND *IN VITRO* CULTURES

Summary

Brassinosteroids (BR) were found in rape pollen in 1979. These compounds, such as brassinolide, 24-epibrassinolide, castasterone are considered to be a new class of phytohormones. BR belong to steroids, a group of compounds, which have a basic sterane carbon skeleton. BR exhibit a multitude of physiological activities. Application of BR cause higher production of plant biomass, an increase in the quality and yield of different economically important crops, such as wheat, potato, rice, etc. Brassinosteroids

are natural plant constituents which makes them environmental friendly regulators in agricultural and horticultural production. In *in vitro* culture, BR stimulate callus formation, plant regeneration and processes of embryogenesis, their application makes protocols of micropropagation of plants more efficient. The physiological activity of BR is still a field of intensive investigations and the most interesting results of which are patented.