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PROMOÇÃO:



Bioactivators agrochemicals – a revision

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Bioactivators agrochemicals are complex organic substances, not bioregulators, which modify plant growth promoters of endogenous hormones synthesis with capacity of changes in plant morphology and physiology. They are characterized here through three agrochemicals: aldicarb, thiametoxan and hydrogen cyanamide, and it was selected as a demonstrative sequence of action of these substances. Conventionally aldicarb and thiametoxan are systemic insecticides for crops initial pests control and hydrogen cyanamide is mainly used as shoots promoter of grapes. These agrochemicals have capacity to act on transcription factors of the plant and in the genes expression, in membrane proteins modifying the ionic transport and the mineral nutrition, changing enzymatic activity and the metabolism in a way to promote endogenous hormones biosynthesis, resulting in morphological and physiological processes which lead to a better plant behavior and productivity. Bioactivators have the capacity to act on transcription factors of the plant and in the genes expression, in membrane proteins modifying the ionic transport, and over metabolic enzymes with capacity of affect the secondary metabolism, in a way to modify the mineral nutrition, producing precursors of plant hormones, leading to the hormone synthesis and to answers of plant to nutrients and hormones. Other researches with bioactivators are related with increases in germination, stand and vigor of plants, enzymatic activity, increases in the level of mineral salts (nutrients), higher plants, greater stem diameter, roots growth, increases in dry matter, number of fruits, seeds and crop production, showing mean increases of 10% in productivity. They seen to increase absorption of water (across aquaporins) and to promote stomatal resistance, improving water status in the plant. These facts could lead the plant to endure better water and salt stress.

Key-words: aldicarb, thiametoxan, hydrogen cyanamide, development, production.