SECTION D

D-11

NEW GROWTH INHIBITORS IN *HEVEA* LEAVES

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It is well known that many physiological processes such as growth, development and differentiation in plants are controlled by naturally occurring chemicals known as growth substances. Three major classes of growth, hormones, auxins, gibberellins, cytokinins, a growth inhibitor abscisic acid and ethylene gas are known to be involved in growth processes. The relative proportions of these compounds tend to change during the critical stages of the growth cycle of a plant.

An investigation was made into endogenous growth substances found in the young shoots of the clone RRIC 101. A methanolic extract prepared from young shoots was first separated into neutral, acidic and basic components by differential solvent extraction procedures. Each fraction was further purified and components in them were separated by thin layer chromatography or by paper partition chromatography. Biological activities in different regions of chromatograms were investigated by the wheat coleoptile straight growth test and by the cress seed germination test. Presence of new groups of inhibitors in addition to the well known growth inhibitor abscisic acid was clearly seen.