

PRELIMINARY INVESTIGATIONS ON THE CYANOGENIC
GLUCOSIDE OF HEVEA BRASILLIENSIS LEAVES

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Hydrogen cyanide is liberated when the endogenous enzyme linamarase comes into contact with the cyanogenic glucoside linamarin reported⁽¹⁾ to be present in Rubber (Hevea brasilliensis). This rapid breakdown of the glucoside is an important factor in the toxicity of cyanophoric plants to mammals and to pathogenic and parasitic organisms⁽²⁾.

Preliminary investigations on the cyanogenic glucoside of leaves of clones of Rubber were carried out before an attempt could be made to determine if a relationship existed between cyanide levels and resistance of leaves to disease.

Initial studies indicated that total cyanide levels in leaves ranged from 0.15 to 0.62 percent by mass (on moisture free basis) with variations observed between clonal type and environment conditions. Young leaves usually contained higher levels of total cyanide than older leaves. No differences were observed in the different parts of the leaf.

Studies carried out on eight clonal types indicate that there could be a relationship between cyanide levels and resistance to disease.

References:

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