RESPONSE OF DIFFERENT AGES OF GRAPE STEM CUTTINGS TO INDOLE BUTYRIC ACID

SPECIAL PROBLEM

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RESPONSE OF DIFFERENT AGES OF GRAPE STEM CUTTINGS TO INDOLE BUTYRIC ACID

A Special Problem

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(Major in Agronomy)

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A B S T R A C T

The study, "Response of Different Ages of Grape Stem Cuttings to Indole Butyric Acid", was conducted from February to April, 1979 at the college main nursery project, Don Severino Agricultural College, Indang, Cavite. Its objective was to determine the effects of various concentration of Indole Butyric Acid (IBA) on the growth and survival of different ages of grape stem cuttings.

The study was divided into two phases: phase I and phase II. In phase I, two hundred and seventy (270) grape stem cuttings comprising of about 90 soft, 90 semi-hard and 90 hardwood cuttings were dipped in the different concentrations of IBA as 50 ppm, 150 ppm, and 200 ppm for 24 hours. In phase II, the selected cuttings were transplanted to the plastic bags with fine sandy loam soil to determine the response of the treated cuttings when transplanted.

The results in phase I shows that IBA affects the growth and survival of the cuttings especially at 200 ppm. The percentage survival as well as the number and length of roots were increased. The number of leaves plus the number and length of shoots increased at 150 ppm IBA. Though treatments have different effects on the performance of the cuttings, the use of IBA has led to higher percentage survival and better growth.

The different grape stem cuttings responsed differently to IBA treatment. Hardwood and semi-hardwood cuttings showed an increase in the plant survival when dipped to 200 ppm of IBA. The number and length of shoots as well as the number of leaves produced were significantly greater compared to soft wood cuttings.

In phase II, results showed that transplanting enabled the cuttings to develop more and longer roots and shoots. Rapid growth was observed especially at the second week up to the time they were fully grown and ready for transplanting.

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by

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[1/] A Special Problem presented to the faculty of the Don Severino Agricultural College, Indang, Cavite, in partial fulfillment of the requirements for graduation with the degree of Bachelor of Science in Agriculture (BSA), Major in Agronomy. Contribution No. P.S. 80033-026. Prepared in the Plant Science Department under the supervision of Mr. Reynaldo C. Ersando.

INTRODUCTION

Grape is a woody vine which climbed by means of tendrills and when untrimmed often reaches a length of 50 feet or more. The leaves are alternate, palmately lobed and always toothedged. Small greenish flowers in clusters surrounded the fruit which varies in color from almost black to green, red and amber. Botanically, the fruit is a berry, more or less globular within the juicy pulps of which the seeds lie. In many varieties, the fruit is covered with whitish powdery bloom. All grapes contain vigor (glucose and fructose) in varying quantities depending on the variety. Those having the most glucose are the most readily fermented.