

Abstract



# Study on effect of types and frequency of sound (music and noise) on seed germination and growth of plants of cluster bean (cyamopsis tetragonoloba)

#### Rajiv Devendra Vaidya

Department of Physics, Sheth P. T. Arts & Science College, Godhra, Panchmahals, Gujarat, India

## Abstract:

This research work is an attempt to study the effect of varying frequency and types of sound on plant growth. The common guar or cluster bean (cyamopsis tetragonoloba) plants have been selected for their relatively seasonal and fast growing rates. There were 13 sets of plants taken out of which one was without treatment kept as a control and remaining 12 divided into further 3 sets each of 4 plants for classical, rock and traffic noise sound treatment. They were given treatment for lower frequency (50-100) and higher frequency (1500-2000) range by keeping them either near (25cm) and far (550cm). The parameters like germination rate, height of plants, number of leaves, chlorophyll concentration etc. were monitored and compared with parameters of control plant. The results show that the plants are able to distinguish between classical music, rhythmic rock music and non rhythmic traffic noise and also varying frequencies.

## **Biography:**

Rajiv Devendra Vaidya has completed his PhD from Sardar Patel University, Vallalbh Vidyanagar, Gujarat, India. His partial research work has been carried out at HPPD, BARC, Mumbai. He has published more than 30 papers in reputed journals and attended more than 25 conferences or seminar at national and international level.



#### **Recent Publications:**

- 1. Vidya Chivukula and Shivaraman Ramaswamy St. Francis College, Osmania University. Hyderabad, India
- 2. KATHERINE CREATH, Ph.D. (Optical Science), Ph.D. (Music), and GARY E. SCHWARTZ, Ph.D.
- 3. Margaret E. Collins\* and John E.K. Foreman The University of Western Ontario, London, Canada
- Poopathy Muthu Karippen School of Science and Technology, Universiti Malaysia Sabah Lock Bag 2073, 88999 Kota Kinabalu, Sabah, Malaysia

#### 4th World Plant Genomics and Plant Science Congress | May 26-27, 2020 | Osaka, Japan

**Citation:** Rajiv Devendra Vaidya; Study on effect of types and frequency of sound (music and noise) on seed germination and growth of plants of cluster bean (cyamopsis tetragonoloba).; Plant Genomics 2020; May 26-27, 2020; Osaka, Japan; pg-14