

## **DECLARATION**

I declare that the thesis entitled “**STUDIES ON THE EFFICACY OF *ALLIUM CEPA* VARIETIES [BIG (RED AND WHITE) AND SMALL ONION]**” submitted by me for the degree of **Doctor of Philosophy** is the record of original work carried out by me during the period from June 2009 to July 2013 under the guidance of Dr. S. Ezhilarasi Balasubramanian, Associate Professor and Head, Post Graduate and Research Department of Zoology, Ethiraj College for Women (autonomous), Chennai-600 008 and has not formed the basis for the award of any other degree, diploma, associateship, fellowship and titles in this or any other University or other similar Institution of higher learning.

**Signature of the candidate**

**(R. PONNULAKSHMI)**

**Countersigned by the Supervisor**

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## LIST OF ABBREVIATIONS

ANOVA	-	Analysis of Variance
ATCC	-	American Type Culture Collection
$C_6H_{12}O_6$	-	Glucose
$CaCl_2$	-	Calcium chloride
cm	-	Centimetre
$CO_2$	-	Carbon dioxide
DAD	-	Diode Array Detector
DNA	-	Deoxyribonucleic acid
DPPH	-	2, 2-Diphenyl-1-picrylhydrazyl
ETC	-	Electron transport chain
etc.	-	Etcetera
gm	-	Gram
h	-	Hour
HCl	-	Hydrochloric acid
HPLC	-	High-performance liquid chromatography
$IC_{50}$	-	Half maximal inhibitory concentration
KCl	-	Potassium chloride
Kg	-	kilogram
$KH_2PO_4$	-	Potassium dihydrogen phosphate
LDL	-	Low-density lipoprotein
M	-	Molar
$MgSO_4$	-	Magnesium sulfate



ml	-	Millilitre
mm	-	Millimetre
mM	-	Millimolar
NaCl	-	Sodium chloride
NaHCO <sub>3</sub>	-	Sodium bicarbonate
NaHPO <sub>4</sub>	-	Sodium orthophosphate
NBT	-	Nitroblue tetrazolium
nm	-	Nanometre
OD	-	Optical density
PMS	-	Phenazine methosulphate
PMS/NADH	-	Phenazine methosulfate-nicotinamide adenine dinucleotide
SOD	-	Superoxide dismutase
SPSS	-	Statistical Product and Service Solutions
SD	-	Standard Deviation
TBA	-	Thiobarbituric acid
TBARS	-	Thiobarbituric acid reactive substances
TLC	-	Thin layer chromatography
UV	-	Ultraviolet
W/V	-	Weight/Volume
WHO	-	World Health Organization
α	-	Alpha
%	-	Percentage
μg	-	Microgram

$\mu\text{l}$	-	Microlitre
$\pm$	-	Plus or Minus
$^{\circ}\text{C}$	-	Degree Celsius