DECLARATION

I, hereby declare that this thesis entitled "An air assisted sprayer with electrostatic nozzle for coconut palms" is a bonafide record of research work done by me during the course of research and the thesis has not previously formed the basis for the award to me of any degree, diploma, associateship, fellowship or other similar title, of any other University or Society.

Tavanur Date: Athira Prasad (2020-28-004)

CERTIFICATE

Certified that this thesis entitled "An air assisted sprayer with electrostatic nozzle for coconut palms" is a record of research work done independently by Athira Prasad (2020-28-004) under my guidance and supervision and that it has not previously formed the basis for the award of any degree, diploma, fellowship or associateship to her.

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We, the undersigned members of the advisory committee of **Athira Prasad (2020-28-004)**, a candidate for the degree of **Doctor of Philosophy in Agricultural Engineering** with major in Farm Machinery and Power Engineering, agree that the thesis entitled "An air assisted sprayer with **electrostatic nozzle for coconut palms**" may be submitted by Athira Prasad, in partial fulfillment of the requirement for the degree.

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Athira Prasad

DEDICATION

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SYMBOLS AND ABBREVIATIONS

±	:	Plus or minus
×	:	Multiplication
0	:	Degree
°C	:	Degree centigrade
AC	:	Alternate Current
DC	:	Direct Current
С	:	Coulomb
mC	:	Milli Coulomb
et al.	:	and others
FMPE	:	Farm Machinery and Power Engineering
mm	:	Millimeter
cm	:	Centimeter
cm ²	:	Square centimeter
cm ³	:	Cubic centimeter
М	:	Meter
g	:	Gram
kg	:	Kilogram
h	:	Hour
L	:	Litre
mL	:	Milli litre
ha	:	Hectare
min	:	Minute
S	:	Second
%	:	Per cent
kg ⁻¹	:	Per kilogram
h^{-1}	:	Per hour
min ⁻¹	:	Per minute
s ⁻¹	:	Per second
r	:	Radius
d	:	Diameter

Ν	:	Newton
V	:	Volt
А	:	Ampere
W	:	Watts
Ah	:	Ampere hour
kV	:	Kilo volt
kW	:	Kilo Watt
mC·Kg ⁻¹	:	Milli Coulomb per kilogram
Pa	:	Pascal
MPa	:	Mega Pascal
CMR		Charge-to-mass ratio
VMD	:	Volume Median Diameter
	•	Volume median Diameter
NMD	:	Number Median Diameter
NMD Uc	-	
	:	Number Median Diameter
Uc	:	Number Median Diameter Uniformity Coefficient
Uc RSF	:	Number Median Diameter Uniformity Coefficient Relative Span Factor
Uc RSF Ω	:	Number Median Diameter Uniformity Coefficient Relative Span Factor Ohm
Uc RSF Ω μ	:	Number Median Diameter Uniformity Coefficient Relative Span Factor Ohm Micro
Uc RSF Ω μ σ		Number Median Diameter Uniformity Coefficient Relative Span Factor Ohm Micro Greek small letter sigma