



CERTIFICATE

OF APPRECIATION


THE CERTIFICATE IS AWARDED TO:

Muhammad Yanis Musdja

as Oral Presenter

For presenting His/Her outstanding research work (Abstract ID: ABS-10)
with the theme "Education, Research and Health Practice in the New Normal: Challenges and Opportunity"
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Speaker 4.5 SKP, Moderator 1.5 SKP
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Comparison of the Effects of Aloe vera L and Aleurites moluccanus, in Single and Mixed Forms in Promoting Hair Growth

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- **Hair loss can cause baldness and in medical called with Alopecia, this occurs due to stress, genetic factors, hormonal disorders, nutritional deficiencies, and the effects of certain health problems. Herbs is a fairly good option for this treatment, because it has low side effects.**



- **The aim of this study was to compare the single and combined action of *Aloe vera* L (*aloe vera*) and *Aleurites moluccanus* L (candlenut) on the growth of rabbit hair**

- The test was carried out with a 5% content for each preparation in the form of a gel, as a positive control 5% minoxidil gel was used. A total of 5 rabbits, each on their back, their hair was cut in 6 squares, each plot with an area of 2cm square, the remaining hair was removed with a depilatory cream, until hair looked exhausted. In each plot, 6 kinds of test preparations were applied, namely gel: Aloe vera L, Aleurites moluccanus L, a combination of Aloe vera L and Aleurites moluccanus L, positive control, normal control and negative control



***Aloe vera* L (aloe vera)/Lidah buaya**



***Aleurites moluccanus* L (candlenut)/Kemiri**

EXTRACT CHARACTERISTICS

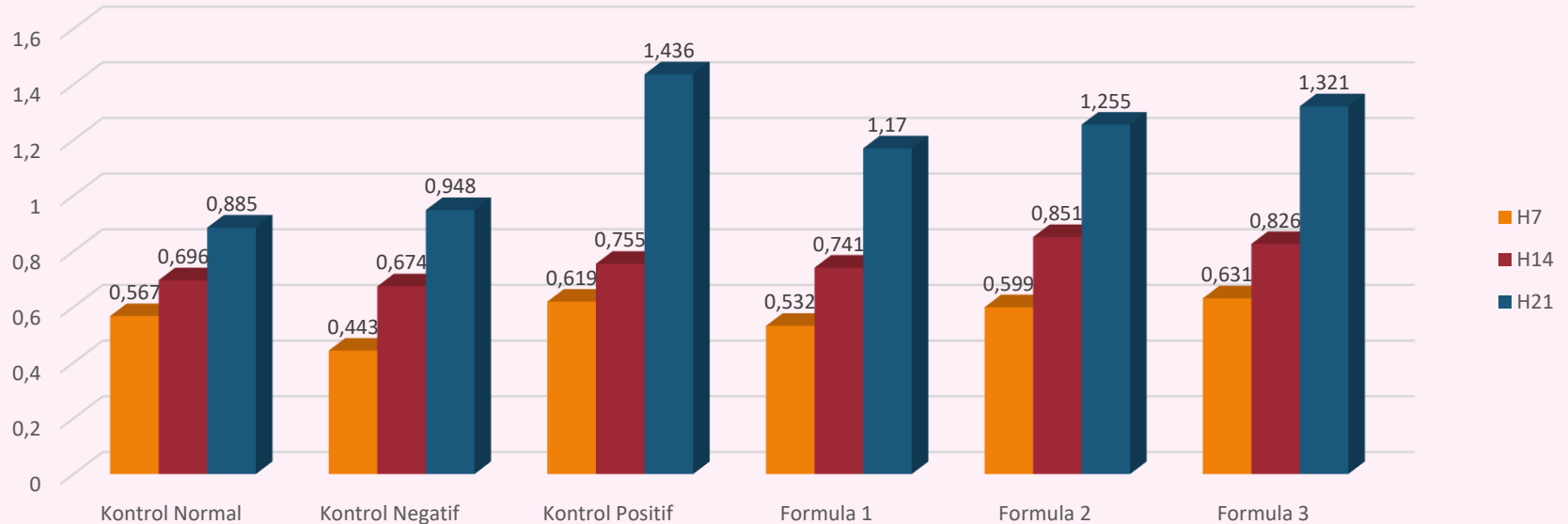
Characteristics	Aloe Vera Leaf Extract	Candlenut oil
Color	Greenish yellow	Dark brown
Shape	Powder	Viscous liquid
Water content	12,38%	17,35%
Ash content	9,353%	1,531%
Rendement	0,75%	2,096%

GEL DOSAGE FORMULATIONS

Material	Negative control	Positive control	Aloe Vera Extract	Candlenut oil	Combination of Aloe Vera Extract + Candlenut oil	
Candlenut oil	-	-		5	5	Formula 1
Aloe Vera Extract	-	-	5		5	Formula 2
Combination of Aloe Vera Extract + Candlenut oil	-	-	2,5	2,5	5	Formula 3
Minoksidil			1			
Na CMC	3,0	3,0	3,0	3,0	3,0	
Propilenglicol	3,75	3,75	3,75	3,75	3,75	
Glycerin	7,5	7,5	7,5	7,5	7,5	
Nipagin	0,05	0,05	0,05	0,05	0,005	
Aquadest	Ad 100	Ad 100	Ad 100	Ad 100	Ad 100	

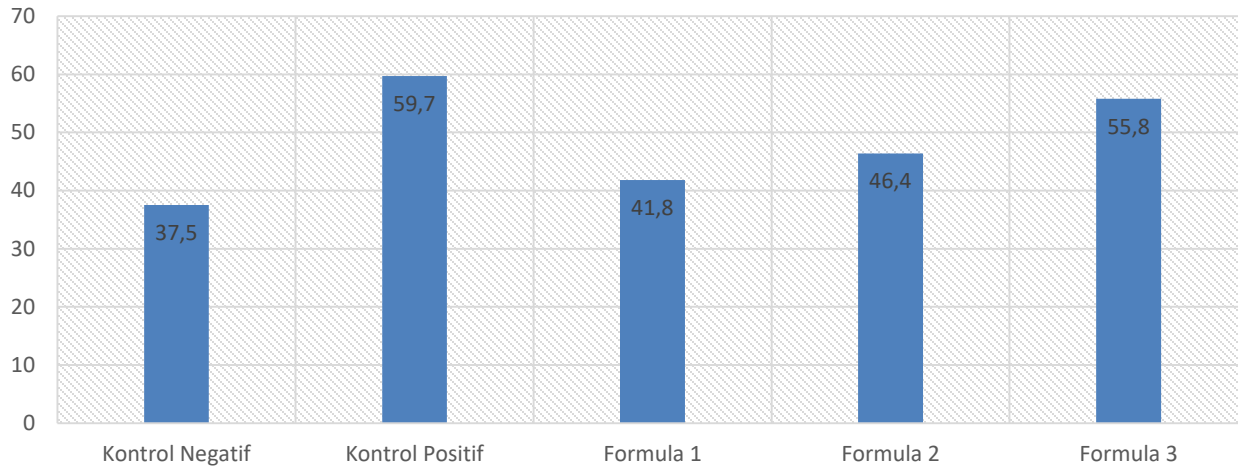
RESULT

Hair growth curve




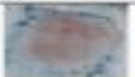






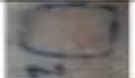










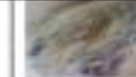







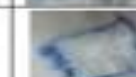




The results of the one-way ANOVA statistical analysis of hair growth data just on day 21 showed a significantly different ($P < 0.05$)

Hair Diameter on Day 21








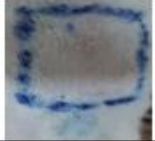






















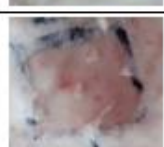


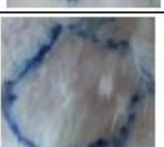
Results of Visual Observation of Average Rabbit Hair

Kelompok	Hari Pengamatan			
	0	7	14	21
Kontrol Normal				
				
				
				

Formula 3				
				
				
				



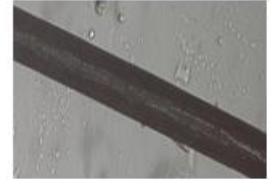




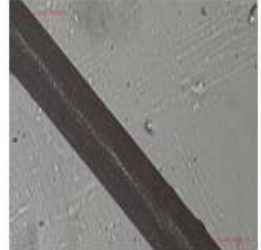


Results of Visual Observation of Average Rabbit Hair

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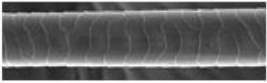

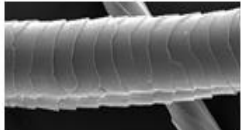
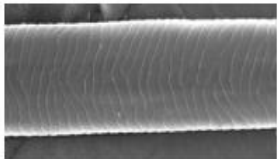
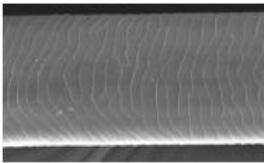
Measuring Hair Diameter by Light Microscope

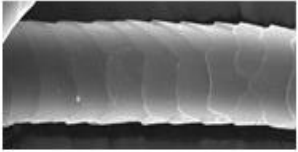
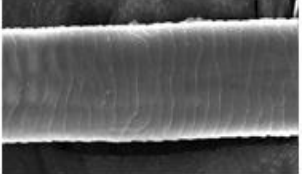
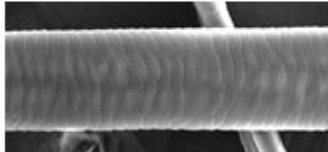
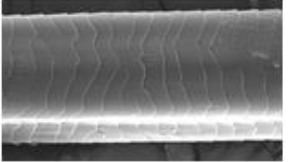
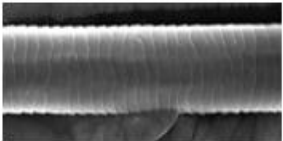
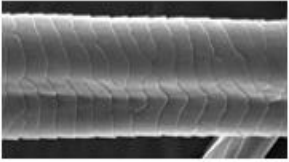
Lampiran 12. Gambar Mikroskopik Rambut

Kelompok	Gambar		Diameter				
Kontrol Normal			31,7 mikrometer	Formula 1			41,8 mikrometer
				Formula 2			46,4 mikrometer
Kontrol Negatif			37,5 mikrometer	Formula 3			55,8 mikrometer

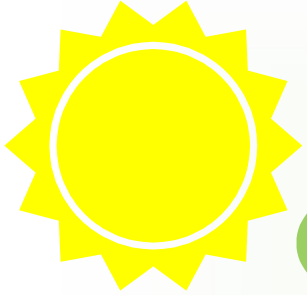
Measuring Hair Diameter with a Scanning Electron Microscope (SEM)

Lampiran 13. Gambar Rambut Uji SEM

Kelompok	Gambar		Diameter
	Perbesaran 750	Perbesaran 1.500	
Kontrol Normal			17,8 mikrometer
Kontrol Negatif			21,4 mikrometer
Kontrol Positif			54,9 mikrometer

Formula 1			26,1 mikrometer
Formula 2			33,4 mikrometer
Formula 3			36,7 mikrometer

CONCLUSION



- **Gel combination of aloe vera leaf extract and hazelnut seed extract had an effect on hair growth of the New Zealand male white rabbit, in the form of increased hair length, increased hair weight, and increased hair diameter compared to negative controls, as well as hair growth activity, had the same effect. with minoxidil as a positive control.**

