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LAMPIRAN

Lampiran 1. Model Pengacakan Rancangan Penelitian RBSL 4X4

	Kambing 1	Kambing 2	Kambing 3	Kambing 4
Periode 1	**R1**	**R2**	**R3**	**R4**
Periode 2	**R3**	**R4**	**R2**	**R1**
Periode 3	**R2**	**R1**	**R4**	**R3**
Periode 4	**R4**	**R3**	**R1**	**R2**

Keterangan: R1= Rumput gajah, R2= Rumput gajah mini,
R3= Rumput benggala, R4= Rumput bede

Lampiran 2. Output Program Neway Karakteristik Degradasi Bahan Kering

Rumput Gajah

```
  Model based on McDonald 1981 JAgricSciCamb96: 251-252
  The degradation curve is described as:
   1 Within a lag time  T   Y = A  ie the initial washing loss
   2 Beyond the time    T   Y = a+b(1-EXP(-ct))
   potential degradation (B) is calculated as a+b-A

 * * * * * * * * * * * * * * * * * * * * * * * * * *

  R1.1

  A =      988
  B =     4910
  A + B = 5898
  C =       0410
  Lag time T =   55 hr

  The fitted curve is:
  Y =    -260  +    6158  [1-EXP(-  0410  t)]
  RSD =  139

  Times                  4    8   12   24   48   72

  Measurements         644 1439 2273 3447 5151 5530

  Fitted values        672 1463 2135 3598 5039 5577


* * * * * * * * * * * * * * * * * * * * * * * * * *

  R1.2

  A =      988
  B =     4981
  A + B = 5969
  C =       0433
  Lag time T =   58 hr

  The fitted curve is:
  Y =    -434  +    6403  [1-EXP(-  0433  t)]
  RSD =  220

  Times                  4    8   12   24   48   72

  Measurements         568 1515 2159 3523 5455 5530

  Fitted values        585 1442 2162 3706 5169 5686


 * * * * * * * * * * * * * * * * * * * * * * * * * *
```

R1.3

```
A =      988
B =     5192
A + B = 6180
C =       0362
Lag time T =   53 hr

The fitted curve is:
Y =    -114  +    6294  [1-EXP(-  0362  t)]
RSD =  263

Times                  4    8   12   24   48   72

Measurements         682 1413 2384 3258 5269 5640

Fitted values        736 1470 2106 3543 5075 5717
```

* *

R1.4

```
A =      988
B =     5124
A + B = 6112
C =       0370
Lag time T =   51 hr

The fitted curve is:
Y =     -88  +    6199  [1-EXP(-  0370  t)]
RSD =  183

Times                  4    8   12   24   48   72

Measurements         712 1572 2216 3364 5261 5591

Fitted values        766 1503 2137 3564 5065 5681
```

Rumput Gajah Mini

```
Model based on McDonald 1981 JAgricSciCamb96: 251-252
  The degradation curve is described as:
   1 Within a lag time  T   Y = A  ie the initial washing loss
   2 Beyond the time    T   Y = a+b(1-EXP(-ct))
   potential degradation (B) is calculated as a+b-A
```

* *

R2.1

```
A =     1650
B =     4518
A + B = 6168
C =       0392
Lag time T =   80 hr
```

```
 The fitted curve is:
 Y =     -11  +    6179  [1-EXP(-  0392  t)]
 RSD =  159

 Times                 4    8   12   24   48   72

 Measurements         901 1602 2403 3605 5408 5708

 Fitted values        885 1652 2307 3756 5226 5800
```

* *

R2.2

```
 A =     1650
 B =     4249
 A + B = 5899
 C =       0402
 Lag time T =   85 hr

 The fitted curve is:
 Y =     -84  +    5983  [1-EXP(-  0402  t)]
 RSD =  275

 Times                 4    8   12   24   48   72

 Measurements         795 1610 2257 3367 5383 5385

 Fitted values        806 1563 2207 3621 5032 5569
```

* *

R2.3

```
 A =     1650
 B =     4682
 A + B = 6332
 C =       0361
 Lag time T =   81 hr

 The fitted curve is:
 Y =      71  +    6261  [1-EXP(-  0361  t)]
 RSD =  213

 Times                 4    8   12   24   48   72

 Measurements         851 1652 2453 3455 5408 5788

 Fitted values        912 1640 2270 3697 5223 5865
```

* *

R2.4

```
A =     1650
B =     4565
A + B = 6215
C =       0389
Lag time T =   85 hr

The fitted curve is:
Y =    -143  +    6358  [1-EXP(-  0389  t)]
RSD =  262

Times                  4    8   12   24   48   72

Measurements         700 1547 2481 3422 5442 5744

Fitted values        773 1557 2229 3716 5233 5829
```

Rumput Benggala

```
Model based on McDonald 1981 JAgricSciCamb96: 251-252
The degradation curve is described as:
 1 Within a lag time  T   Y = A  ie the initial washing loss
 2 Beyond the time    T   Y = a+b(1-EXP(-ct))
 potential degradation (B) is calculated as a+b-A
```

* *

R3.1

```
A =      742
B =     5207
A + B = 5949
C =       0402
Lag time T =   38 hr

The fitted curve is:
Y =    -123  +    6072  [1-EXP(-  0402  t)]
RSD =  155

Times                  4    8   12   24   48   72

Measurements         800 1450 2350 3501 5201 5551

Fitted values        780 1549 2203 3638 5069 5614
```

* *

R3.2

```
A =      742
B =     4950
A + B = 5692
C =       0388
Lag time T =   44 hr
```

```
The fitted curve is:
Y =    -173  +    5865  [1-EXP(-  0388  t)]
RSD =  165

Times                  4    8   12   24   48   72

Measurements         610 1408 2169 3195 4906 5287

Fitted values        671 1393 2012 3383 4783 5334
```

* *

R3.3

```
A =      742
B =     4798
A + B = 5540
C =       0422
Lag time T =   49 hr

The fitted curve is:
Y =    -349  +    5889  [1-EXP(-  0422  t)]
RSD =  215

Times                  4    8   12   24   48   72

Measurements         458 1359 2245 3165 4846 5248

Fitted values        566 1339 1992 3402 4764 5258
```

* *

R3.4

```
A =      742
B =     4904
A + B = 5646
C =       0403
Lag time T =   49 hr

The fitted curve is:
Y =    -338  +    5984  [1-EXP(-  0403  t)]
RSD =  154

Times                  4    8   12   24   48   72

Measurements         511 1325 2081 3200 4925 5256

Fitted values        554 1312 1958 3373 4783 5318
```

Rumput Bede

Model based on McDonald 1981 JAgricSciCamb96: 251-252
The degradation curve is described as:
1 Within a lag time T Y = A ie the initial washing loss
2 Beyond the time T Y = a+b(1-EXP(-ct))
potential degradation (B) is calculated as a+b-A

* *

R4.1

A = 679
B = 3979
A + B = 4658
C = 0511
Lag time T = 23 hr

The fitted curve is:
Y = 177 + 4481 [1-EXP(- 0511 t)]
RSD = 85

Times	4	8	12	24	48	72
Measurements	977	1740	2224	3273	4370	4491
Fitted values	1005	1680	2230	3343	4272	4544

* *

R4.2

A = 679
B = 4271
A + B = 4950
C = 0422
Lag time T = 31 hr

The fitted curve is:
Y = 86 + 4864 [1-EXP(- 0422 t)]
RSD = 118

Times	4	8	12	24	48	72
Measurements	738	1586	2073	3155	4206	4793
Fitted values	842	1480	2019	3184	4309	4717

Rumen outflow rate (k)	0100	0200	0300	0400	0500	0600

* *

R4.3

```
A =      679
B =     3929
A + B = 4608
C =       0536
Lag time T =   40 hr

The fitted curve is:
Y =    -269  +    4877  [1-EXP(-  0536  t)]
RSD =  264

Times                  4    8   12   24   48   72

Measurements         442 1763 2092 3066 4210 4579

Fitted values        672 1432 2045 3261 4236 4505
```

* *

R4.4

```
A =      679
B =     4121
A + B = 4800
C =       0384
Lag time T =   27 hr

The fitted curve is:
Y =     237  +    4563  [1-EXP(-  0384  t)]
RSD =   75
Times                  4    8   12   24   48   72

Measurements         885 1476 1907 2926 4176 4461

Fitted values        887 1445 1923 2985 4078 4513
```

Lampiran 3. Output Program Neway Karakteristik Degradasi Protein Kasar

Rumput Gajah

```
 Model based on McDonald 1981 JAgricSciCamb96: 251-252
 The degradation curve is described as:
  1 Within a lag time  T   Y = A  ie the initial washing loss
  2 Beyond the time    T   Y = a+b(1-EXP(-ct))
  potential degradation (B) is calculated as a+b-A

* * * * * * * * * * * * * * * * * * * * * * * * * *
 R1.1

 A =      988
 B =     6265
 A + B = 7253
 C =       0711
 Lag time T =   24 hr

 The fitted curve is:
 Y =    -152  +    7405  [1-EXP(-  0711  t)]
 RSD =  352

 Times                  4    8   12   24   48   72

 Measurements        1830 2602 4468 5853 6990 7222

 Fitted values       1681 3060 4098 5909 7009 7209


* * * * * * * * * * * * * * * * * * * * * * * * * *

 R1.2

 A =      988
 B =     7077
 A + B = 8065
 C =       0428
 Lag time T =    7 hr

 The fitted curve is:
 Y =     766  +    7298  [1-EXP(-  0428  t)]
 RSD =  216

 Times                  4    8   12   24   48   72

 Measurements        1989 2880 3603 5368 7423 7551

 Fitted values       1915 2884 3700 5454 7131 7731


* * * * * * * * * * * * * * * * * * * * * * * * * *
```

R1.3

```
A =      988
B =     6482
A + B = 7470
C =       0516
Lag time T =    9 hr

The fitted curve is:
Y =     689  +    6781  [1-EXP(-  0516  t)]
RSD =  435

Times                  4    8   12   24   48   72

Measurements        2205 2866 3337 5998 6788 7273

Fitted values       1954 2983 3820 5505 6901 7305
```

* *

R1.4

```
A =      988
B =     5924
A + B = 6912
C =       0546
Lag time T =    6 hr

The fitted curve is:
Y =     799  +    6113  [1-EXP(-  0546  t)]
RSD =   86

Times                  4    8   12   24   48   72

Measurements        1991 3044 3625 5300 6496 6764

Fitted values       1998 2962 3737 5263 6467 6792
```

Rumput Gajah Mini

```
Model based on McDonald 1981 JAgricSciCamb96: 251-252
The degradation curve is described as:
 1 Within a lag time  T   Y = A  ie the initial washing loss
 2 Beyond the time    T   Y = a+b(1-EXP(-ct))
 potential degradation (B) is calculated as a+b-A
```

* *

R2.1

```
A =     1650
B =     4920
A + B = 6570
C =       0419
Lag time T =   43 hr
```

```
The fitted curve is:
Y =     667  +    5902  [1-EXP(-  0419  t)]
RSD =  235

Times                  4    8   12   24   48   72

Measurements        1533 2319 3217 4156 5987 6191

Fitted values       1579 2349 3001 4412 5781 6281
```

* *

R2.2

```
A =     1650
B =     4833
A + B = 6483
C =       0545
Lag time T =   42 hr

The fitted curve is:
Y =     422  +    6061  [1-EXP(-  0545  t)]
RSD =  230

Times                  4    8   12   24   48   72

Measurements        1472 2668 3538 4571 6150 6349

Fitted values       1609 2563 3330 4843 6039 6363
```

* *

R2.3

```
A =     1650
B =     5283
A + B = 6933
C =       0443
Lag time T =   41 hr

The fitted curve is:
Y =     600  +    6333  [1-EXP(-  0443  t)]
RSD =  292

Times                  4    8   12   24   48   72

Measurements        1478 2689 3327 4434 6441 6558

Fitted values       1628 2490 3212 4747 6178 6672
```

* *

R2.4

```
A =     1650
B =     5061
A + B = 6711
C =       0433
Lag time T =   42 hr

The fitted curve is:
Y =     640  +    6071  [1-EXP(-  0433  t)]
RSD =  186

Times                  4    8   12   24   48   72

Measurements         1522 2621 3015 4444 6116 6357

Fitted values        1605 2417 3099 4562 5950 6442
```

RUMPUT BENGGALA

```
Model based on McDonald 1981 JAgricSciCamb96: 251-252
  The degradation curve is described as:
   1 Within a lag time  T   Y = A  ie the initial washing loss
   2 Beyond the time    T   Y = a+b(1-EXP(-ct))
   potential degradation (B) is calculated as a+b-A

 * * * * * * * * * * * * * * * * * * * * * * * * * *
```

R3.1

```
A =      742
B =     6599
A + B = 7341
C =       0410
Lag time T =  -16 hr
There is something wrong with either the washing loss
or the measurements of rumen incubation of the first few hrs


The fitted curve is:
Y =    1169  +    6171  [1-EXP(-  0410  t)]
RSD =  558

Times                  4    8   12   24   48   72

Measurements         1766 3164 4041 4396 6806 6922

Fitted values        2103 2895 3567 5034 6478 7018


 * * * * * * * * * * * * * * * * * * * * * * * * * *
```

R3.2

```
A =      742
B =     6987
A + B = 7729
C =       0500
Lag time T =    3 hr

The fitted curve is:
Y =     621  +    7108  [1-EXP(-  0500  t)]
RSD =  578

Times                  4    8   12   24   48   72

Measurements         1454 3583 4019 5022 7320 7503

Fitted values        1909 2963 3826 5586 7083 7534
```

* *

R3.3

```
A =      742
B =     6656
A + B = 7398
C =       0568
Lag time T =   26 hr

The fitted curve is:
Y =    -295  +    7693  [1-EXP(-  0568  t)]
RSD =  295

Times                  4    8   12   24   48   72

Measurements         1102 2905 3263 5467 6782 7354

Fitted values        1267 2512 3504 5427 6893 7269
```

* *

R3.4

```
A =      742
B =     7055
A + B = 7797
C =       0405
Lag time T =    7 hr

The fitted curve is:
Y =     548  +    7248  [1-EXP(-  0405  t)]
RSD =  237

Times                  4    8   12   24   48   72

Measurements         1800 2349 3332 4996 7018 7239

Fitted values        1632 2553 3337 5052 6757 7403
```

Rumput Bede

Model based on McDonald 1981 JAgricSciCamb96: 251-252
The degradation curve is described as:
1 Within a lag time T Y = A ie the initial washing loss
2 Beyond the time T Y = a+b(1-EXP(-ct))
potential degradation (B) is calculated as a+b-A

* *

R4.1

A = 679
B = 6220
A + B = 6899
C = 0915
Lag time T = 22 hr

The fitted curve is:
Y = -706 + 7605 [1-EXP(- 0915 t)]
RSD = 74

Times	4	8	12	24	48	72
Measurements	1585	3315	4359	5977	6864	6872
Fitted values	1624	3241	4361	6052	6805	6889

* *

R4.2

A = 679
B = 5622
A + B = 6301
C = 0703
Lag time T = 20 hr

The fitted curve is:
Y = -154 + 6455 [1-EXP(- 0703 t)]

RSD = 209

Times	4	8	12	24	48	72
Measurements	1283	2844	3571	4885	6180	6256
Fitted values	1428	2622	3524	5106	6080	6260

* *

R4.3

A = 679
B = 5680
A + B = 6359
C = 0525
Lag time T = 2 hr

The fitted curve is:
Y = 613 + 5747 [1-EXP(- 0525 t)]
RSD = 282

Times	4	8	12	24	48	72
Measurements	1516	2764	3512	4405	6039	6204
Fitted values	1701	2584	3299	4730	5897	6228

* *

R4.4

A = 679
B = 4955
A + B = 5634
C = 0647
Lag time T = 3 hr

The fitted curve is:
Y = 583 + 5050 [1-EXP(- 0647 t)]
RSD = 129

Times	4	8	12	24	48	72
Measurements	1804	2472	3392	4546	5504	5509
Fitted values	1735	2624	3310	4565	5407	5586

Lampiran 4. Analisis Ragam Degradasi Bahan Kering

Analisis Ragam Masa Inkubasi 0 Jam

Tests of Between-Subjects Effects

Dependent Variable: Hasil Inkubasi

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	3,609[a]	6	,602	,863	,555
Intercept	29,295	1	29,295	42,034	,000
Kolom	,380	3	,127	,182	,906
Baris	3,230	3	1,077	1,545	,269
Error	6,272	9	,697		
Total	39,177	16			
Corrected Total	9,882	15			

a R Squared = ,365 (Adjusted R Squared = -,058)

Analisis Ragam Masa Inkubasi 4 Jam

Tests of Between-Subjects Effects

Dependent Variable: Hasil Inkubasi

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	13,059[a]	6	2,177	,747	,627
Intercept	792,704	1	792,704	272,149	,000
Kambing	1,676	3	,559	,192	,899
Bahan_Pakan	11,384	3	3,795	1,303	,332
Error	26,215	9	2,913		
Total	831,978	16			
Corrected Total	39,274	15			

a R Squared = ,333 (Adjusted R Squared = -,112)

Analisis Ragam Masa Inkubasi 8 Jam

Tests of Between-Subjects Effects

Dependent Variable: Hasil Inkubasi

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	18,549[a]	6	3,091	4,850	,018
Intercept	3714,598	1	3714,598	5827,372	,000
Kambing	2,447	3	,816	1,280	,339
Bahan_Pakan	16,102	3	5,367	8,420	,006
Error	5,737	9	,637		
Total	3738,884	16			
Corrected Total	24,286	15			

a R Squared = ,764 (Adjusted R Squared = ,606)

Hasil Inkubasi

Duncan[a,b]

Bahan Pakan	N	Subset 1	2	3
Rumput Benggala	4	13,8300		
Rumput Gajah	4	14,8475	14,8475	
Rumput Gajah Mini	4		15,7600	15,7600
Rumput BD	4			16,5100
Sig		,105	,140	,217

Analisis Ragam Masa Inkubasi 12 Jam

Tests of Between-Subjects Effects

Dependent Variable: Hasil Inkubasi

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	15,846[a]	6	2,641	1,654	,239
Intercept	7938,810	1	7938,810	4971,907	,000
Kambing	,573	3	,191	,120	,946
Bahan_Pakan	15,272	3	5,091	3,188	,077
Error	14,371	9	1,597		
Total	7969,026	16			
Corrected Total	30,216	15			

a R Squared = ,524 (Adjusted R Squared = ,207)

Analisis Ragam Masa Inkubasi 24 Jam

Tests of Between-Subjects Effects

Dependent Variable: Hasil Inkubasi

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	21,598[a]	6	3,600	1,409	,309
Intercept	17386,400	1	17386,400	6804,289	,000
Kambing	,410	3	,137	,054	,983
Bahan_Pakan	21,188	3	7,063	2,764	,104
Error	22,997	9	2,555		
Total	17430,995	16			
Corrected Total	44,595	15			

a R Squared = ,484 (Adjusted R Squared = ,141)

Analisis Ragam Masa Inkubasi 48 Jam

Tests of Between-Subjects Effects

Dependent Variable: Hasil Inkubasi

Source	Type III Sum of Squares	Df	Mean Square	F	Sig
Corrected Model	302,245[a]	6	50,374	31,450	,000
Intercept	39532,375	1	39532,375	24681,157	,000
Kambing	1,790	3	,597	,372	,775
Bahan_Pakan	300,455	3	100,152	62,527	,000
Error	14,416	9	1,602		
Total	39849,035	16			
Corrected Total	316,660	15			

a R Squared = ,954 (Adjusted R Squared = ,924)

Hasil Inkubasi

Duncan[a,b]

Bahan Pakan	N	Subset 1	2	3
Rumput BD	4	42,6825		
Rumput Benggala	4		49,6050	
Rumput Gajah	4			52,8400
Rumput Gajah Mini	4			53,7000
Sig		1,000	1,000	,362

Analisis Ragam Masa Inkubasi 72 Jam

Tests of Between-Subjects Effects

Dependent Variable: Hasil Inkubasi

Source	Type III Sum of Squares	Df	Mean Square	F	Sig
Corrected Model	250,897[a]	6	41,816	13,563	,000
Intercept	44408,187	1	44408,187	14403,975	,000
Kambing	4,904	3	1,635	,530	,673
Bahan_Pakan	245,992	3	81,997	26,596	,000
Error	27,747	9	3,083		
Total	44686,831	16			
Corrected Total	278,644	15			

a R Squared = ,900 (Adjusted R Squared = ,834)

Hasil Inkubasi

Duncan[a,b]

Bahan Pakan	N	Subset 1	Subset 2
Rumput BD	4	46,1050	
Rumput Benggala	4		53,2850
Rumput Gajah Mini	4		55,6150
Rumput Gajah	4		55,7275
Sig		1,000	,092

Lampiran 5. Analisis Ragam Degradasi Protein Kasar

Analisis Ragam Masa Inkubasi 0 Jam

Tests of Between-Subjects Effects

Dependent Variable: Hasil

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	48,115[a]	6	8,019	1,758	,214
Intercept	393,626	1	393,626	86,272	,000
Kolom	16,317	3	5,439	1,192	,367
Baris	31,797	3	10,599	2,323	,143
Error	41,063	9	4,563		
Total	482,803	16			
Corrected Total	89,178	15			

a R Squared = ,540 (Adjusted R Squared = ,233)

Analisis Ragam Masa Inkubasi 4 Jam

Tests of Between-Subjects Effects

Dependent Variable: Hasil Inkubasi

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	79,865[a]	6	13,311	1,303	,346
Intercept	4005,941	1	4005,941	392,147	,000
Kambing	3,682	3	1,227	,120	,946
Bahan_Pakan	76,184	3	25,395	2,486	,127
Error	91,939	9	10,215		
Total	4177,745	16			
Corrected Total	171,804	15			

a R Squared = ,465 (Adjusted R Squared = ,108)

Analisis Ragam Masa Inkubasi 8 Jam

Tests of Between-Subjects Effects

Dependent Variable: Hasil Inkubasi

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	88,430[a]	6	14,738	1,043	,458
Intercept	14022,704	1	14022,704	992,460	,000
Kambing	16,265	3	5,422	,384	,767
Bahan_Pakan	72,165	3	24,055	1,703	,236
Error	127,163	9	14,129		
Total	14238,297	16			
Corrected Total	215,593	15			

a R Squared = ,410 (Adjusted R Squared = ,017)

Analisis Ragam Masa Inkubasi 12 Jam

Tests of Between-Subjects Effects

Dependent Variable: Hasil Inkubasi

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	116,397[a]	6	19,400	1,143	,411
Intercept	20319,077	1	20319,077	1197,143	,000
Kambing	47,305	3	15,768	,929	,466
Bahan_Pakan	69,092	3	23,031	1,357	,317
Error	152,757	9	16,973		
Total	20588,231	16			
Corrected Total	269,154	15			

a R Squared = ,432 (Adjusted R Squared = ,054)

Analisis Ragam Masa Inkubasi 24 Jam

Tests of Between-Subjects Effects

Dependent Variable: Hasil Inkubasi

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	572,039[a]	6	95,340	3,461	,047
Intercept	39883,086	1	39883,086	1447,859	,000
Kambing	117,434	3	39,145	1,421	,299
Bahan_Pakan	454,604	3	151,535	5,501	,020
Error	247,916	9	27,546		
Total	40703,041	16			

Corrected Total	819,955	15			

a R Squared = ,698 (Adjusted R Squared = ,496)

Hasil Inkubasi

Duncan[a,b]

		Subset	
Bahan Pakan	N	1	2
Rumput Gajah Mini	4	43,3750	
Rumput Benggala	4	48,9475	
Rumput BD	4	49,1425	
Rumput Gajah	4		58,2425
Sig		,171	1,000

Analisis Ragam Masa Inkubasi 48 Jam

Tests of Between-Subjects Effects

Dependent Variable: Hasil Inkubasi

Source	Type III Sum of Squares	Df	Mean Square	F	Sig
Corrected Model	335,240[a]	6	55,873	4,573	,021
Intercept	69240,028	1	69240,028	5667,369	,000
Kambing	52,287	3	17,429	1,427	,298
Bahan_Pakan	282,953	3	94,318	7,720	,007
Error	109,956	9	12,217		
Total	69685,224	16			
Corrected Total	445,195	15			

a R Squared = ,753 (Adjusted R Squared = ,588)

Hasil Inkubasi

Duncan[a,b]

		Subset	
Bahan Pakan	N	1	2
Rumput BD	4	61,0975	
Rumput Gajah Mini	4	62,0950	
Rumput Benggala	4		69,7475
Rumput Gajah	4		70,1950
Sig		,696	,860

Analisis Ragam Masa Inkubasi 72 Jam

Tests of Between-Subjects Effects

Dependent Variable: Hasil Inkubasi

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	435,027[a]	6	72,505	7,234	,005
Intercept	72636,988	1	72636,988	7247,709	,000
Kambing	67,778	3	22,593	2,254	,151
Bahan_Pakan	367,249	3	122,416	12,215	,002
Error	90,199	9	10,022		
Total	73162,213	16			
Corrected Total	525,226	15			

a R Squared = ,828 (Adjusted R Squared = ,714)

Hasil Inkubasi

Duncan[a,b]

Bahan Pakan	N	Subset 1	2
Rumput BD	4	62,4700	
Rumput Gajah Mini	4	62,7100	
Rumput Gajah	4		71,9675
Rumput Benggala	4		72,3650
Sig		,917	,863

Lampiran 6. Analisis Ragam Karakteristik Degradasi Bahan Kering

Fraksi Pakan Yang Mudah Terdegradasi (a)

Tests of Between-Subjects Effects

Dependent Variable: Nilai a

Source	Type III Sum of Squares	Df	Mean Square	F	Sig
Corrected Model	236,619[a]	6	39,437	502553,708	,000
Intercept	1647,345	1	1647,345	20992717,035	,000
Kambing	,000	3	,000	1,566	,264
Bahan_Pakan	236,619	3	78,873	1005105,850	,000
Error	,001	9	7,847E-5		
Total	1883,965	16			
Corrected Total	236,620	15			

a R Squared = 1,000 (Adjusted R Squared = 1,000)

Nilai a

Duncan[a,b]

Bahan Pakan	N	Subset 1	2	3	4
Rumput BD	4	6,7875			
Rumput Benggala	4		7,4200		
Rumput Gajah	4			9,8800	
Rumput Gajah Mini	4				16,5000
Sig		1,000	1,000	1,000	1,000

Fraksi Yang Sulit Terdegradasi (b)

Tests of Between-Subjects Effects

Dependent Variable: Nilai b

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	249,273[a]	6	41,546	13,872	,000
Intercept	34577,403	1	34577,403	11545,021	,000
Kambing	4,253	3	1,418	,473	,708
Bahan_Pakan	245,021	3	81,674	27,270	,000
Error	26,955	9	2,995		
Total	34853,631	16			
Corrected Total	276,228	15			

a R Squared = ,902 (Adjusted R Squared = ,837)

Nilai b

Duncan[a,b]

Bahan Pakan	N	Subset 1	2	3
Rumput BD	4	40,7500		
Rumput Gajah Mini	4		45,0350	
Rumput Benggala	4			49,6475
Rumput Gajah	4			50,5175
Sig		1,000	1,000	,495

Fraksi Total Potensial Degradasi (a+b)

Tests of Between-Subjects Effects

Dependent Variable: Nilai a+b

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	488,543[a]	6	81,424	27,187	,000
Intercept	51320,372	1	51320,372	17135,318	,000
Kambing	4,253	3	1,418	,473	,708
Bahan_Pakan	484,290	3	161,430	53,900	,000
Error	26,955	9	2,995		
Total	51835,869	16			
Corrected Total	515,498	15			

a R Squared = ,948 (Adjusted R Squared = ,913)

Nilai a+b

Duncan[a,b]

Bahan Pakan	N	Subset 1	2	3
Rumput BD	4	47,5400		
Rumput Benggala	4		57,0675	
Rumput Gajah	4			60,3975
Rumput Gajah Mini	4			61,5350
Sig		1,000	1,000	,377

Laju Degradasi Fraksi b (c)

Tests of Between-Subjects Effects

Dependent Variable: Nilai c

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	,000[a]	6	3,823E-5	2,538	,101
Intercept	,027	1	,027	1791,075	,000
Kambing	7,969E-5	3	2,656E-5	1,763	,224
Bahan_Pakan	,000	3	4,990E-5	3,313	,071
Error	,000	9	1,506E-5		
Total	,027	16			
Corrected Total	,000	15			

a R Squared = ,629 (Adjusted R Squared = ,381)

Lag time

Tests of Between-Subjects Effects

Dependent Variable: Nilai c

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	,000[a]	6	3,823E-5	2,538	,101
Intercept	,027	1	,027	1791,075	,000
Kambing	7,969E-5	3	2,656E-5	1,763	,224
Bahan_Pakan	,000	3	4,990E-5	3,313	,071
Error	,000	9	1,506E-5		
Total	,027	16			
Corrected Total	,000	15			

a R Squared = ,629 (Adjusted R Squared = ,381)

Lampiran 7. Analisis ragam karakteristik degradasi Protein Kasar

Fraksi Pakan Yang Mudah Larut (a)

Tests of Between-Subjects Effects

Dependent Variable: Fraksi a

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	236,552[a]	6	39,425	473103,100	,000
Intercept	1647,548	1	1647,548	19770577,200	,000
Kolom	5,000E-5	3	1,667E-5	,200	,894
Jenis_Rumput	236,552	3	78,851	946206,000	,000
Error	,001	9	8,333E-5		
Total	1884,100	16			
Corrected Total	236,552	15			

a R Squared = 1,000 (Adjusted R Squared = 1,000)

Fraksi a

Duncan[a,b]

Bahan Pakan	N	Subset 1	2	3	4
Rumput BD	4	6,7900			
Rumput Benggala	4		7,4200		
Rumput Gajah	4			9,8800	
Rumput Gajah Mini	4				16,5000
Sig		1,000	1,000	1,000	1,000

Fraksi Pakan Yang Sulit Terdegradasi (b)

Tests of Between-Subjects Effects

Dependent Variable: Fraksi b

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	1458,398[a]	6	243,066	6,464	,007
Intercept	54778,232	1	54778,232	1456,827	,000
Kolom	216,564	3	72,188	1,920	,197
Jenis_Rumput	1241,834	3	413,945	11,009	,002
Error	338,409	9	37,601		
Total	56575,039	16			
Corrected Total	1796,807	15			

a R Squared = ,812 (Adjusted R Squared = ,686)

Fraksi b

Duncan[a,b]

Bahan Pakan	N	Subset 1	2	3
Rumput Gajah Mini	4	45,2425		
Rumput BD	4		56,1925	
Rumput Gajah	4		64,3700	64,3700
Rumput Benggala	4			68,2425
Sig		1,000	,092	,395

Total Fraksi Degradasi Potensial (a+b)

Tests of Between-Subjects Effects

Dependent Variable: Fraksi a+b

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	858,039[a]	6	143,007	3,803	,036
Intercept	75425,756	1	75425,756	2005,948	,000
Kolom	216,564	3	72,188	1,920	,197
Jenis_Rumput	641,476	3	213,825	5,687	,018
Error	338,409	9	37,601		
Total	76622,205	16			
Corrected Total	1196,449	15			

a R Squared = ,717 (Adjusted R Squared = ,529)

Fraksi a+b

Duncan[a,b]

Bahan Pakan	N	Subset 1	2
Rumput Gajah Mini	4	61,7425	
Rumput BD	4	62,9825	
Rumput Gajah	4		74,2500
Rumput Benggala	4		75,6625
Sig		,781	,752

Laju Degradasi Fraksi b (c)

Tests of Between-Subjects Effects

Dependent Variable: Nilai c

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	,002[a]	6	,000	1,922	,182
Intercept	,047	1	,047	331,448	,000
Kolom	,000	3	7,001E-5	,489	,698
Jenis_Rumput	,001	3	,000	3,354	,069
Error	,001	9	,000		
Total	,050	16			
Corrected Total	,003	15			

a R Squared = ,562 (Adjusted R Squared = ,269)

Lag Time

Tests of Between-Subjects Effects

Dependent Variable: Lag time

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	28,289[a]	6	4,715	5,773	,010
Intercept	61,231	1	61,231	74,970	,000
Kolom	1,387	3	,462	,566	,651
Jenis_Rumput	26,902	3	8,967	10,979	,002
Error	7,351	9	,817		
Total	96,870	16			
Corrected Total	35,639	15			

a R Squared = ,794 (Adjusted R Squared = ,656)

Lag time

Duncan[a,b]

Bahan Pakan	N	Subset 1	Subset 2
Rumput Gajah	4	1,150	
Rumput BD	4	1,175	
Rumput Benggala	4	1,300	
Rumput Gajah Mini	4		4,200
Sig		,827	1,000

Lampiran 8. Dokumentasi

Gambar 1. kandang metabolisme

Gambar 2. Penimbangan bobot badan awal

Gambar 3. Persiapan sampel pakan

Gambar 4. Penggilingan sampel pakan

Gambar 5. Operasi fistulasi ternak kambing

Gambar 6. Hewan kambing setelah pemasangan *canula*

Gambar 7. Pemasukan sampel pakan pada *nylon bag*

Gambar 8. Pemasukan, pengeluaran, dan pencucian kantong sampel dari dalam rumen ternak

Gambar 7. Analisis bahan pakan di Lab Kimia Pakan, Fakultas Peternakan, Universitas Hasanuddin

RIWAYAT HIDUP

Andi Ikhsan Wijaya adalah nama penulis tesis ini. Penulis lahir dari pasangan Bapak A. Muhtar dan Ibu A. Murni yang merupakan anak pertama dari 4 bersaudara. Penulis dilahirkan di Sinjai pada 23 April 1998. Penulis beralamat di Desa Pattalssang, Kecamatan Sinjai Timur, Kabupaten Sinjai, Provinsi Sulawesi Selatan. Penulis dapat dihubungi melalui email andiikhsan23@gmail.com. Pada tahun 2003 penulis memulai pendidikan formal di SD Negeri 33 Pattalassang (2003-2009), SMP Negeri 2 Panaikang (2009-2012), SMA Negeri 1 Mare (2012-2015). Setelah selesai menempuh pendidikan menengah atas, penulis melanjutkan Pendidikan Diploma IV (D-IV) Program Studi Penyuluhan Peternakan dan Kesejahteraan Hewan di Politeknik Pembangunan Pertanian (Polbangtan) Gowa mulai dari tahun (2016-2020). Dengan ketekunan dan motivasi tinggi untuk terus belajar, penulis berkesempatan melanjutkankan pendidikan Strata 2 (S2) Program Studi Ilmu dan Teknologi Peternakan, Universitas Hasanuddin pada tahun 2020. penulis berhasil menyelesaikan program studi yang ditekuni pada tahun 2023, dengan judul tesis “Analisis Degradasi Hijauan Pakan Dalam Rumen Pada Ternak Kambing”. Semoga dengan penulisan tugas akhir tesis ini mampu memberikan kontribusi positif bagi dunia pendidikan dan menambah khazanah ilmu pengetahuan serta bermanfaat dan berguna bagi sesama.