

ADOLF B. KRENTTEL



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THESIS
ON WOOL
A. B. KRENTTEL
1901

THESIS

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Senior Agricultural Thesis.

On Wool

-by-

A. B. Krentel,

Class of '99.

Michigan Agricultural College,

Agricultural College, Mich.

THESIS

Chart A.

This chart shows the weight of the fleece of each sheep kept in the flock from the year 1892 to 1899. The different breeds considered are the Shropshires, Hampshires, Merinos, Oxfords, Cotswolds, Dorest Horned, and the Liecesters.

The average number of lbs. for the Shropshire for each of the eight years were as follows:

For the year 1892, ending April, 8.46 lbs..

"	"	"	1893,	"	"	7.43	"	/
"	"	"	1894,	"	"	7.80	"	
"	"	"	1895,	"	"	7.61	"	
"	"	"	1896,	"	"	7.58	"	
"	"	"	1897,	"	"	7.58	"	
"	"	"	1898,	"	"	6.20	"	
"	"	"	1899,	"	"	7.94	"	

The average yield of the Shropshires for the eight years was 7.57 lbs.

The Hampshires for each of the eight years yields the following number of lbs.:

For the year 1892, ending April, 7.25 lbs.,

"	"	"	1893,	"	"	7.375	"
"	"	"	1894,	"	"	7.83	"
"	"	"	1895,	"	"	8.25	"
"	"	"	1896,	"	"	6.20	"

Chart A. continued.

For the year 1897, ending April, 7.62 lbs.,

" " " 1898, " " 7.16 "

" " " 1899, " " 7.77 "

The average yield for the Hampshires for the eight years was 7.30 lbs.

The Merinos yields, as follows, for each of the eight years:

For the year 1892, ending April, 10.95 lbs.,

" " " 1893, " " 11.4 "

" " " 1894, " " 11.31 "

" " " 1895, " " 10.12 "

" " " 1896, " " 11.12 "

" " " 1897, " " 8.66 "

" " " 1898, " " 9.93 "

" " " 1899, " " 9.75 "

The average yield of the Merinos for the eight years was 10.28 lbs.

For each of the eight years, the average yield observed for the Oxfords were as follows:

For the year 1892, ending April, 9.91 lbs.,

" " " 1893, " " 10.41 "

" " " 1894, " " 10.58 "

" " " 1895, " " 8.83 "

" " " 1896, " " 8.81 "

" " " 1897, " " 8.12 "

" " " 1898, " " 8.02 "

Chart A. continued.

For the year 1899, ending April, 12.20 lbs.

The average yield of the Oxfords, for the eight years was 10.28 lbs.

The Cotswold for the eight years yielded an average number of lbs. for each year as follows:

For the year 1892, ending April, 14.62 lbs.,

"	"	"	1893,	"	"	12.5	"
"	"	"	1894,	"	"	14.12	"
"	"	"	1895,	"	"	14.08	"
"	"	"	1896,	"	"	11.91	"
"	"	"	1897,	"	"	11.7	"
"	"	"	1898,	"	"	11.00	"
"	"	"	1899,	"	"	12.3	"

The average yield of the Cotswold, for the eight years was 12.78 lbs.

The Dorset Horned yielded the following number of lbs. for the eight years:

For the year 1892, ending April, 5.1 lbs.,

"	"	"	1893,	"	"	5.81	"
"	"	"	1894,	"	"	4.175	"
"	"	"	1895,	"	"	- -	"
"	"	"	1896,	"	"	6	"
"	"	"	1897,	"	"	6.25	"
"	"	"	1898,	"	"	4.50	"

Chart A. continued.

For the year 1899, ending April, 9 lbs.

The average yield, for the eight years, of Dorset Horned was 4.48 lbs.

The Liecesters yield the following number of lbs. for each of the five years abserved:

For the year 1892, ending April, 11.28 lbs.,

"	"	"	1893,	"	"	10.33	"
"	"	"	1894,	"	"	10.5	"
"	"	"	1895,	"	"	10.25	"
"	"	"	1896,	"	"	10.75	"

The average yield for the Liecesters for the five years are 10.62 lbs.

Chart A.
Shropshire.

Nos.	'92	'93	'94	'95	'96	'97	'98	'99
7						9	7.4	
8						9	7.5	
10						7.5	9	
16							6.2	7.3
22	9.25	7.5	9					
32	7	5						
64							7.5	8.8
65							7.5	8.6
67							7.5	8
71							6	7
72							7.9	
79							7.1	8.4
83							8.1	9.2
109							8.5	7.25
113	10.25	7.5						
114	9.75	6.75						
118	8.25	7	7.25	7.5				
120	7							
126	8.75	7.25	6					
163	12.75		11.25					
409		7.75	8.25					
418	9	8	8	8				
454	10.5	8.75	8.5					

Chart A.

Shropshire continued.

Nos.	'92	'93	'94	'95	'96	'97	'98	'99
458						10.75		7.2
481	7	5	3.5					
520	8.5	8.75	9	8.5	9.75	7	8.5	7.7
521	8.5	8	7.25	8	7			
538	8	6.25	6.5	6.5	6.5			
539	7.5	6.25	6.5					
540	5.75	5.75	6.25	6				
543	8.5	7.75	7.5		7.5	6.75	5.5	5.2
546	8	8	9.25	9.5	9			
549	8	8	6.25	7.5	8			
550	7	8	9.25	9.5	9			
586		6.25	6.75					
589		10	8.75	8.5	9	8.75		9
590		10	8.75	8.5	9	8.75		9
600			8.5		9			
601			7.25	7.75	7.5	7	5.5	
603			8.25	6.5				
605				6.5		7.5	6.7	8.5
606				6.75	8.25	6.75		7.9
607			8.75		7.5	7.5		
608			8	7.5				
609			9.25	6.75				
611			6.5	4.25				

Shropshire continued.

[illegible]

Chart A.

Hampshire.

Nos.	'92	'93	'94	'95	'96	'97	'98	'99
572		6.5	7					
579	7.25	8.25	8.75	8.5	7.25	7.5	6.9	
624				7.25			9.1	
625					7.75	9.75		9.4
627			7.75	9	7	8.25	8.1	
656							5.3	6.7
686					5.1	6.5	6.5	6.5
688					4	6	7.1	8.5

Chart A.

Merino.

Nos.	'92	'93	'94	'95	'96	'97	'98	'99
480	7.75	11						
496	10.25	10.25	9.75	9.25	10.75		9	
544	10.5	11.5	12	11	10.5	10.5	11.3	9.5
549	16.5	14.25	12.75		12.75	7.25		
1169	9.75	10	10.75		10.5	8.25	9.5	10

Chart A.

Oxford.

Nos.	'92	'93	'94	'95	'96	'97	'98	'99
1	9.75	10.5	10	8	8.5	7.5	5.7	
2						7.75	7.9	9.9
55							8.7	12.4
320	10.25	10.25	11.75	10.5	9.5			
465	9.75	10.5	10	8	8.5	7.5	5.7	
689					8.75	9.75	12.1	14.3

Chart A.

Cotswold.

Nos.	'92	'93	'94	'95	'96	'97	'98	'99
304	15.25	14.5	13	15	13.25			
350	14	10.5						
621			15.25	14				
655				13.25	12.5	13	11.7	13.3
691					10	10.5	10.3	11.1

Chart A.

Dorset Horned.

Nos.	'92	'93	'94	'95	'96	'97	'98	'99
60	5	6.2						
61	5	6						
67	5.5	5.25	4.75					
657					6	6.25	4.5	4

Chart A.

Leicester.

Nos.	'92	'93	'94	'95	'96	'97	'98	'99
80	10.5	9.5						
526	11	10.5	11	10.25				
536	12.25	11	10	10.25	10.75			

Chart B.

The object of this chart is to represent the weight of the fleece with respect to the age of the sheep. The weight of the fleeces of the one year old being recorded first. Following this comes the two year old with their recorded weight. This method was followed out and records made up to and including sheep eight years of age. The record was kept from 1892 to 1899 inclusive. The results of this record is shown in chart C.

Chart B.

Shropshire.

Nos.	1 yr.	2 yr.	3 yr.	4 yr.	5 yr.	6 yr.	7 yr.	8 yr.
7	9	7.4						
8	9	7.5						
10	7.5	9						
16				6.2	7.3			
22				9.25	7.5	9		
32						7	5	
64	7.5	8.8						
65	7.5	8.6						
67	7.5	8						
71	6	7						
71	6	7						
79	7.1	8.4						
83	8.1	9.2						
109							8.5	7.25
113					10.25	7.5		
114					9.75	6.75		
118						8.25	7	7.25
454		10.5	8.75	8.5				
458		10.75		7.2				
481		7	5	3.5				
520	8.5	8.75	9	8.5	9.75	7	8.5	7.7
521	8.5	8	7.25	8	6.5			
539	7.5	6.25	6.5					

Chart B.

Shropshire continued.

Nos.	1 yr.	2 yr.	3 yr.	4 yr.	5 yr.	6 yr.	7 yr.	8 yr.
538	8	6.25	6.5	6.5	6.5			
540	5.75	5.75	6.25	6				
543	8.5	7.75	7.5		7.5	6.75	5.5	5.2
546	8	8	9.25	9.5	9			
549	8	8	6.25	7.5	8			
550	7	8	9.25	9.5	9			
586	6.25	6.75						
589	10	8.75	8.5	9	8.75		9	
590	10	8.75	8.5	9	8.75		9	
600			9					
601	7.25	7.75	7.5	7	5.5			
603	8.25	6.5						
605		6.5		7.5	6.7	8.5		
606		6.75	8.25	6.75		7.9		
607			8.75		7.5	7.5		
608	8	7.5						
609	9.25	6.75						
611	6.5	4.25						
612	11	9.5						
628	7.25	7	7	6				
631	8.25	7.5	7					
632	9.25	8.5	7.25	7.2				
639	8.75	10.25	9.75					

Shropshire continued.

[illegible]

Chart B.

Hampshire.

Nos.	1 yr.	2 yr.	3 yr.	4 yr.	5 yr.	6 yr.	7 yr.	8 yr.
572			6.5	7				
579	7.25	8.25	8.75	8.5	7.25	7.5	6.9	
624	7.25			9.1				
625		7.75	9.75		9.4			
627	7.75	9	7	8.25	8.1			
656	5.3	6.7						
686	5	6.5	6.5	6.5				
688	4	6	7.1	6.5				

Chart B.

Merino.

Nos.	1 yr.	2 yr.	3 yr.	4 yr.	5 yr.	6 yr.	7 yr.	8 yr.
480			7.75	11				
496			10.25	10.25	9.75	9.25	10.75	9
544	10.5	11.5	12	11	10.5	10.5	11.3	9.5
549				16.5	14.25	12.75		12.75
1169				9.75	10	10.75		10.5

Chart B.

Oxfords.

Nos.	1 yr.	2 yr.	3 yr.	4 yr.	5 yr.	6 yr.	7 yr.	8 yr.
1			9.75	10.5	10	8	8.5	7.5
2	7.75	7.9	9.9					
55	8.7	12.4						
320			10.25	10.25	11.75	10.5	9.5	
465			9.75	10.5	10	8	8.5	7.5
689	8.75	9.75	10.1	14.3				

Chart B.

Cotswold.

Nos.	1 yr.	2.yr.	3 yr.	4 yr.	5 yr.	6 yr.	7 yr.	8 yr.
304			15.25	14.5	13	15	15.25	
350		14	10.5					
621	15.25	14						
655	13.25	12.5	13	11.7	13.3			
691	10	10.5	10.3	11.1				

Chart B.

Dorset Horned.

Nos.	1 yr.	2 yr.	3 yr.	4 yr.	5 yr.	6 yr.	7 yr.	8 yr.
60	5	6.2						
61	5	6						
67		5.5	5.25	4.75				
657	6	6.25	4.5	4				

Chart B.

Leicester.

Nos.	1 yr.	2 yr.	3 yr.	4 yr.	5 yr.	6 yr.	7 yr.	8 yr.
80				10.5	9.5			
526	11	10.5	11	10.25				
536	12.25	11	10	10.25	10.75			

Chart C.

This chart represents the average weight of fleece for each year for the different breeds. The chart begins with Liecester followed by the Merino, Hampshire, Oxford, Cotswold, Dorset Horned, and Shropshire.

It will be seen that the Liecesters shear the heaviest fleece at one year old, it being 11.63#. They gradually decrease in weight of fleece to the fifth year after this time the record ceases.

The Merino according to the chart, is at its best, as regards weight of fleece, during the second and fourth years. The weight of fleece being 11.5 lbs. and 11.7 lbs. respectively. There being only .2 of lb. difference and this in favor of the fourth year. There is a gradual decrease in the weight of fleece after the fourth year.

By the chart the Hampshire show the greatest weight of fleece at fourth years. There is a gradual increase from the first year to the fourth, it being at this time 8.14 lbs. After this year a gradual decrease in weight of fleece is apparent.

The Oxfords show a gradual increase in weight of fleece from one year old to four years old, the weight of fleece being 11.39#. The amount of wool sheared for the remaining four years gradually decreases.

The cotswold while shearing a greater number of pounds each year than any of the other breeds for the same year, does not

Chart C. continued.

produce its heaviest fleece until the sixth year. The fleece weighing 15#. The seventh year it decreases in weight.

The Dorset Horned sheared a smaller number of pounds than any other of the seven breeds. Its greatest weight of fleece being only 5.99#. This was sheared at two years old. The third and fourth years showed a gradual decrease. The record was not kept after the fourth year.

The shropshire represent the greatest variety in weight of fleece. The second and fifth years show the greatest weight. It being 7.98 lbs. and 8 lbs. respectively. There being only .02 lbs. difference in weight and this in favor of the fifth year. The sixth, seventh, and eight years show a gradual decrease.

Chart C.

Breeds	1 yr.	2 yr.	3 yr.	4 yr.	5 yr.	6 yr.	7 yr.	8 yr.
Liechester	11.63	10.75	10.5	10.3	10.12			
Merino	10.5	11.5	10	11.7	11.13	11.06	11.05	10.44
Hampshire	6.09	7.35	7.6	8.14	8.09	7.5	6.9	
Oxford	8.4	10.01	10.37	11.39	10.58	8.83	8.83	7.5
Cotswold	12.83	12.75	12.26	12.43	13.15	15	13.25	
Dorset Horned	5.33	5.99	4.88	4.37				
Shropshire	5.10	7.98	7.33	7.42	8	7.61	7.5	6.34

Chart D.

The object of this chart is to show the relation between the weight of the fleece and the length of the staple. The chart was kept for one year only--1899.

The chart is divided into three classes. The first class consists of the sheep of each breed whose weight of fleece is between 5 lbs. and 7 lbs. inclusive. The second class takes in the sheep of each breed whose weight of fleece is 7 + lbs. to 9 lbs. inclusive. The third class considered the sheep of each breed whose fleece weighs 9 + lbs. and includes those weighing 30 lbs.

In the first class, we have $1/4\%$ of the shropshires included in this list with an average number of lbs. of 6.64 and an average length of staple of 5.8 in.

Of the Merinos there is only about $1/7\%$ included in this class whose fleece weighed 6.1 lbs. and the average length of fiber was 4.5 in.

The Hampshires have $5/6\%$ included in class I. The average number of lbs. was 5.3 with an average length of staple of 5.15 in.

Of the Dorset Horned in the flock 100% came in this class with an average number of lbs. of 5.62 and an average length of staple in inches of 5.7

In class II, we have out of a flock of Shropshires about $1/2\%$ coming under this class whose average weight of fleece was 8.20 lbs. and an average length of fiber of 6.86 in. (No.)

There was only $1/6\%$ of the Hampshires in the flock who came

Chart D. continued.

in class II. The average weight of fleece being 8.5 lbs. and an average length of staple of 6.5 in.

Class III includes 1/3% of the flock of Shropshires whose average weight of fleece was 9.85 lbs. and an average length of fiber of 7.88 in.

Of the Merinos in the flock 6/7% came in this class with an average of 16.63 lbs. and an average length of fiber of 3.92 in.

Of the Oxfords in the flock 100% came in class III, with an average weight of fleece of 12.13 lbs. and an average length of fiber of 9.15 in.

100% of the Cotswold were included in class three with an average weight of fleece of 12.05 lbs. and an average length of staple of 11.25 in.

Chart D.

Class I.

Shropshire.

Nos.	lbs.	in.
7	7	6.5
71	7	6.125
631	6.9	6.5
607	6.8	6.875
632	6.5	6.25
32029	6.5	4.75
601	6.3	5.375
628	6.1	4.

Hampshire.

Nos.	lbs.	in.
56	6.7	4.75
86	6.5	5.5
104	6.3	5.75
105	6	5
106	6	4.75

Dorset Horned.

Nos.	lbs.	in.
11	7	6.25
60	6.2	5.25
92	6.1	6.375
657	5	5
12	3.8	5.625

Merino.

Nos.	lbs.	in.
628	6.1	4.5

Class II.

Hampshire.

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Chart D.

Class III.

Shropshire.

Nos.	lbs.	in.
93.	11.5	8.5
96	11	11
102	10.1	6.5
103	10	6.5
59399	9.8	6.875
95	9.5	9.5
87	9.5	8
925	9.4	9.125
83	9.2	6.5
85	9.2	7.75
5	9.2	7.5

Merino.

Nos.	lbs..	in.
88	27.6	4.125
680	18.4	2.75
1169	18.4	4.25
646	13.4	3.5
549	13.5	4
544	9.5	4.875

Oxford.

Nos.	lbs.	in.
12432	15.6	9.5
689	14.3	9.75
55	12.4	10
89	11	10.125
2	9.9	7.125
1	9.6	8.375

Cotswold.

Nos.	lbs.	in.
655	13	11.625
69	11.1	10.625

Chart E.

This chart is arranged to show the weight of fleece and the length of staple of the following breeds: Merinos, Oxfords, Cotswolds, Shropshires, Hampshires, and Dorest Horned.

Chart E.

Merino.

Nos.	lbs.	in.
88	27.6	4 1/8
680	18.4	2 3/4
1169	18.4	4 1/4
646	13.4	3 1/2
549	12.5	4
544	9.5	4 7/8
628	6.1	4 1/2

Oxford.

Nos.	lbs.	in.
12432	15.6	9 1/2
689	14.3	9 3/4
55	12.4	10
89	11	10 1/8
2	9.9	7 1/8
1	9.6	8 3/8

Cotswold.

Nos.	lbs.	in.
655	13	11 5/8
69	11 1/10	10 5/8

Shropshire.

Nos.	lbs.	in.
93	11 1/2	8 1/2
96	11	11
102	10 1/10	6 1/2
103	10	6 1/2
59399	9 8/10	6 7/8
95	9 1/2	9 1/2
87	9 1/2	8
925	9 4/10	9 1/8
83	9 2/10	6 1/2
85	9 2/10	7 6/8
5	9 2/10	7 1/2
589	9	6 3/4

Chart E.

Shrop. cont.

Nos.	lbs.	in.
80	8 9/10	7 5/8
64	8 8/10	6 5/8
65	8 6/10	6 1/4
605	8 5/10	6 6/8
79	8 4/10	7 7/8
664	8 4/10	6 6/8
681	8 4/10	6 6/8
639	8 3/10	7 1/2
10	8 2/10	7 5/8
12	8 2/10	7 1/2
77	8 2/10	7 1/4
619	7 8/10	6
520	7 7/10	6 1/4
101	7 6/10	5
459	7 2/10	6 1/4
683	7 2/10	8
7	7	6 1/2
71	7	6 1/8
631	6 9/10	6 1/2
607	6 8/10	6 7/8
632	6 5/10	4 3/4
601	6 3/10	5 3/8
628	6 1/10	4
32029	6 5/10	4 3/4

Hampshire.

Nos.	lbs.	in.
688	8 5/10	6 1/2
56	6 7/10	4 3/4
86	6 5/10	5 1/2
104	6 3/10	5 3/4
105	6	5
106	6	4 6/8

Dorset Horned.

Nos.	lbs.	in.
11	7	6 1/4
60	6 2/10	5 1/4
92	6 1/10	6 3/8
657	5	5
12	3 8/10	5 5/8

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