

Friesians (Continued).

Name of Cow and Class	Tested By	Age at Start of Test:	Fat required for Certificate.	Yield for Season:		
				Days	Milk	Fat
<i>Senior Three-year-old</i> Oakview Keyes Trojan ..	A. W. Montgomerie, Mangere ..	Yrs. Dys. 3 191	lb. 331.1	365	lb. 23,753.3	lb. 905.92
<i>Mature</i> Manakau Zozo Tui 2nd ..	A. W. Montgomerie, Mangere ..	5 283	385.0	365	16,568.6	620.55
Balruddery Echo Sylvia Nancy ..	J. J. Stott, Maruakoa, Oamaru ..	5 16	385.0	282	13,837.7	453.95
Milking Shorthorn.						
<i>Junior Two-year-old</i> Haeremai Lorna's Pride	G. H. B. Lill, Willowby, Ashburton ..	2 34	278.9	364	9,195.6	368.69
Ayrshire.						
<i>Two-year-old</i> Ardgowan Pretty Maid ..	F. S. Hutchings, Ngakuru, Rotorua ..	2 31	278.6	365	11,908.4	500.39
YEARLY DIVISION—SECOND CLASS.						
Jerseys.						
<i>Junior Two-year-old</i> Hatcliffe Hilda ..	H. J. Kaye, Stratford ..	2 4	275.9	365	9,076.1	521.52
Tyntesfield Loma ..	Mrs. E. W. Garland, Matamata ..	2 9	276.4	365	6,396.4	366.06
<i>Mature</i> Baroness Rainbow ..	D. & J. S. Pattison, Kihikihi ..	5 118	385.0	365	9,992.1	586.45
Caesarea Vera ..	F. Parsons, Whenuakura ..	5 25	385.0	348	8,166.9	441.86
Friesians.						
<i>Junior Two-year-old</i> Oakview Keyes Verbelle	A. W. Montgomerie, Mangere ..	1 274	275.5	365	18,348.0	664.18
305-DAY DIVISION—FIRST CLASS.						
Jerseys.						
<i>Junior Two-year-old</i> Kass Goldies Promise ..	W. D. Dron, Nelson ..	2 31	253.6	305	9,407.5	591.16
Belle's Golden Pattie ..	W. D. Dron, Nelson ..	2 13	251.8	305	8,944.0	512.09
Pukatea Crystal ..	G. R. Bell, Waipuku ..	2 17	252.2	305	7,859.6	420.80
Major's Narcissus ..	E. Wright, Redvale ..	2 4	250.9	305	6,718.0	372.50
Erinview Cinderella ..	D. & J. S. Pattison, Kihikihi ..	2 18	252.3	305	6,563.5	366.70
Vernon Estelle's Clare ..	N. A. Gunn, Hamilton ..	2 15	252.0	305	6,782.0	360.20
Maitland's Mayflower ..	L. A. Turner, Riverlea ..	2 29	253.4	301	5,955.6	334.58
Jack's Majestic Lady ..	E. Wright, Redvale ..	2 63	256.8	251	5,327.0	306.34
Bedfordale Cynthia ..	Mrs. G. A. Foster, Tuakau ..	1 349	250.5	305	4,929.2	267.75
<i>Senior Two-year-old</i> Ebors Golden Belle ..	R. J. Wilson, Putaruru ..	2 342	284.7	303	7,886.0	453.05
<i>Three-year-old</i> Ebors Cassie ..	R. J. Wilson, Putaruru ..	3 357	322.7	305	10,589.0	621.82
<i>Four-year-old</i> Glenmore Sunglow ..	D. & J. S. Pattison, Kihikihi ..	4 24	325.9	305	8,245.2	465.10
Heatherlea Marjory ..	H. J. Lancaster, Levin ..	4 20	325.5	260	6,830.4	366.87
<i>Mature</i> Brookfields Duchess ..	W. Craig, Waiuku ..	7 287	360.0	305	9,842.0	470.63
Friesians.						
<i>Senior Four-year-old</i> Fairburn Lady Taureau	W. C. Miller, Motukarara, Canterbury	4 246	348.1	305	14,846.1	592.17

Fertiliser Constituents

R.J. (HAMILTON):—

Could you kindly answer the following questions in a future issue of your "Journal"?

(1) What are the constituents other than the 24 per cent. of phosphoric acid, contained in, say, 1 cwt. of Seychelles guano? Also, what percentage of insoluble phosphoric acid it contains is soluble in the usual 2 per cent. citric acid test?

(2) Is it possible to home-mix caustic lime and superphosphate in the correct proportions to make basic super without it setting and needing regrinding?

(3) Also, what percentage of insoluble phosphoric acid in basic super is soluble in 2 per cent. citric acid test?

FIELDS DIVISION:—

(1) Seychelles guano is leached to such an extent that the nitrogen and potash originally present are very largely removed. Some samples contain a certain amount of carbonate of lime and up to about 1 per cent. of nitrogen. Phosphoric acid present in Seychelles guano is largely in an insoluble form. There is usually 25 to 27 per cent. of phosphoric acid, and of this, 7 to 9 per cent. are citric acid soluble and 15 to 18 per cent. insoluble.

(2) One would not anticipate the caustic lime and superphosphate reacting without the presence of moisture, and damping would result in the formation of lumps. However, reversion appeared to take place in a dry

mixture made up in the laboratory, the moisture normally present in the super apparently being sufficient for reaction. There was no caking. To test for reversion a water extract has to be made, and there is a chance that reversion occurs after the water addition. Precautions were taken to minimise this possibility in the present case. The weight of evidence points to home mixing of the dry ingredients (90 per cent. superphosphate to 10 per cent. burnt lime) being quite feasible and regrinding not being necessary. The mixture should be left a few days before use.

(3) The phosphoric acid in basic super is practically all citric soluble.