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Calf Note 214 – A BRIX table

Introduction

In [Calf Note #199](#), I posted an Excel spreadsheet that allows the user to enter the type of measurement (whole milk solids, colostrum IgG, or serum IgG) and the BRIX % measured on farm and to obtain the estimated value. The estimates are based on regression equations published in various refereed journals.

Some users were unable to access the spreadsheet, while others wanted a simple, table of the BRIX values. So, here you go!!!

Remember, data in the table are based on simple linear regression equations that take the BRIX reading and convert it to the respective measurement. The equations are:

Whole milk solids %: $2.077 + 0.998 \times \text{BRIX}$

Colostrum IgG: $-61.896 + 5.666 \times \text{BRIX}$

Serum IgG: $-78.613 + 11.085 \times \text{BRIX}$

Remember, the BRIX reading is an estimate of the respective variable. There is error associated with each of these measurements, due to factors that can affect BRIX and not affect solids or IgG. These values are guidelines and should not be mistaken for actual laboratory measurements.

References

- Milk solids: Moore et al., 2009. J. Dairy Sci. 92:3503-3509.
Colostrum IgG: Quigley et al., 2013. J. Dairy Sci. 96:1148-1155.
Serum IgG: Morrill et al., 2013. J. Dairy Sci. 96:4535-4541
Deelan et al., 2014. J. Dairy Sci. 97:3838-3844
Elsohaby et al., 2015. J. Vet. Intern. Med. 29:721-726.

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BRIX %	Whole milk solids %	Colostrum IgG, g/L	Serum IgG, g/L
5.0	7.1		
5.5	7.6		
6.0	8.1		
6.5	8.6		
7.0	9.1		
7.5	9.6		4.5
8.0	10.1		10.1
8.5	10.6		15.6
9.0	11.1		21.2
9.5	11.6		26.7
10.0	12.1		32.2
10.5	12.6		37.8
11.0	13.1		43.3
11.5	13.6		48.9
12.0	14.1	6.1	54.4
12.5	14.6	8.9	
13.0	15.1	11.8	
13.5	15.6	14.6	
14.0	16.0	17.4	
14.5		20.3	
15.0		23.1	
15.5		25.9	
16.0		28.8	
16.5		31.6	
17.0		34.4	
17.5		37.3	
18.0		40.1	
18.5		42.9	
19.0		45.8	
19.5		48.6	
20.0		51.4	
20.5		54.3	
21.0		57.1	
21.5		59.9	
22.0		62.8	
22.5		65.6	
23.0		68.4	
23.5		71.3	
24.0		74.1	
24.5		76.9	
25.0		79.8	
25.5		82.6	
26.0		85.4	
26.5		88.3	
27.0		91.1	
27.5		93.9	
28.0		96.8	
28.5		99.6	
29.0		102.4	
29.5		105.3	
30.0		108.1	