

NEW OPPORTUNITIES TO INCREASE THE VALUE OF MILK ANALYSIS

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DR. DANIEL SCHWARZ, FOSS, DENMARK

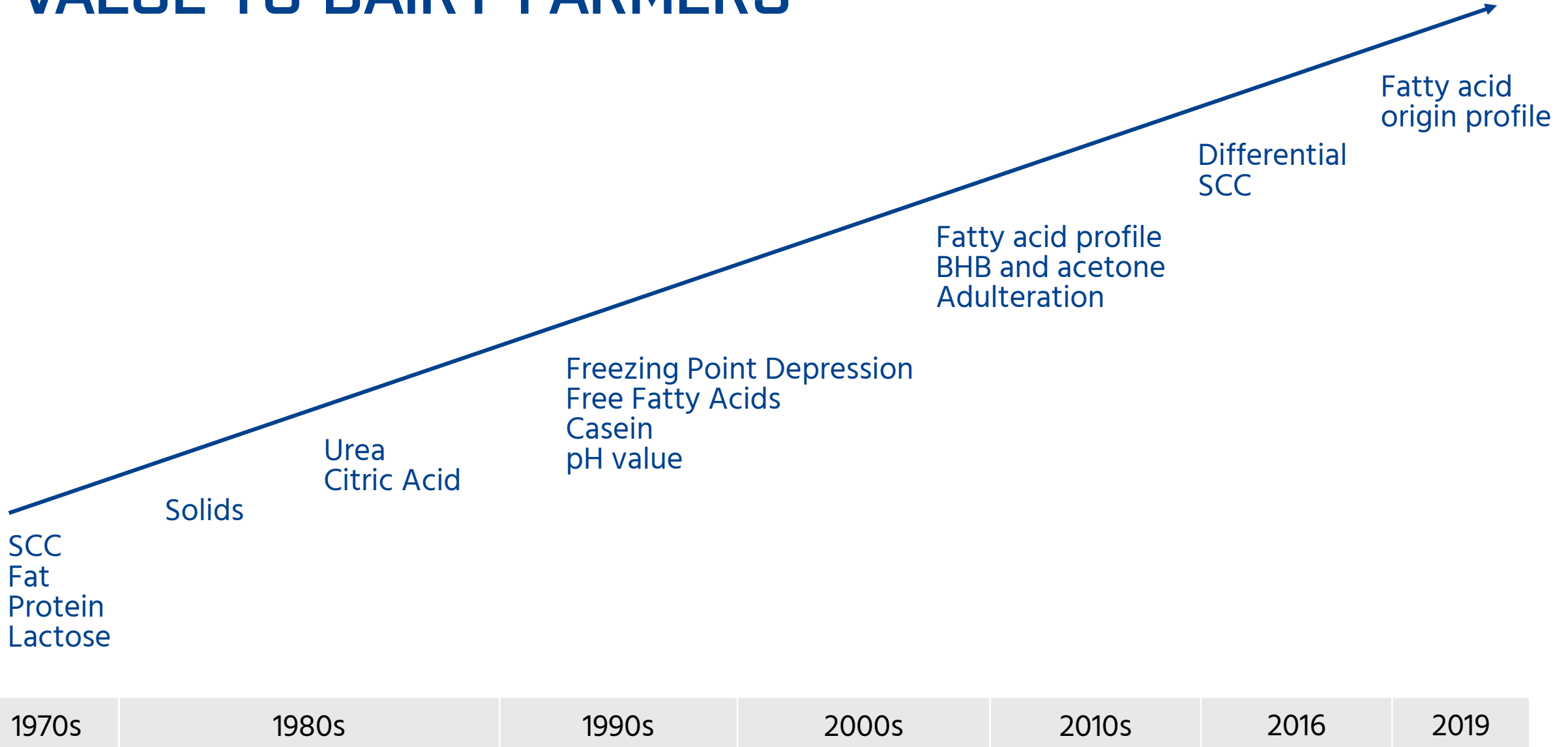
09 September 2019, Dallas, Texas, USA



ANALYTICS BEYOND MEASURE

MILK ANALYSIS NEEDS TO PROVIDE MORE VALUE TO DAIRY FARMERS

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**DIFFERENTIAL SOMATIC CELL
COUNT
BACKGROUND**

MILK CELL DIFFERENTIATION

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ANALYTICS BEYOND MEASURE

J. Dairy Sci. 84:1413-1420
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Application of Differential Inflammatory Cell Count as a Tool to Monitor Udder Health

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J. Dairy Sci. 94:5033-5044
doi:10.3168/jds.2011-4348
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Flow cytometric differential cell counts in milk for the evaluation of inflammatory reactions in clinically healthy and subclinically infected bovine mammary glands

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Can. J. comp. Med. 45: 8-14 (January 1981)

Use of Total and Differential Somatic Cell Counts from Composite Milk Samples to Detect Mastitis in Individual Cows

I.R. Dohoo, A.H. Meek, S.W. Martin and D.A. Barnum*

J Vet Diagn Invest 13:399-407 (2001)

Longitudinal evaluation of bovine mammary gland health status by somatic cell counting, flow cytometry, and cytology

Ariel L. Rivas, Fred W. Quimby, Julia Blue, Ozden Coksaygan



J. Dairy Sci. 96:1-8
http://dx.doi.org/10.3168/jds.2012-6298
© American Dairy Science Association®, 2013.

Differential cell count as an alternative method to diagnose dairy cow mastitis

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NEW DEVELOPMENTS

DIFFERENTIAL SOMATIC CELL COUNT

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J. Dairy Sci. 100:4926–4940
<https://doi.org/10.3168/jds.2016-12409>
© American Dairy Science Association®, 2017.

Differential somatic cell count—A novel method for routine mastitis screening in the frame of Dairy Herd Improvement testing programs

Malin Damm,¹ Claus Holm, Mette Blaabjerg, Morten Novak Bro, and Daniel Schwarz^{1,2}
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J. Dairy Sci. 101:5362–5373
<https://doi.org/10.3168/jds.2017-14152>
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Differential somatic cell count in milk before, during, and after lipopolysaccharide- and lipoteichoic-acid-induced mastitis in dairy cows

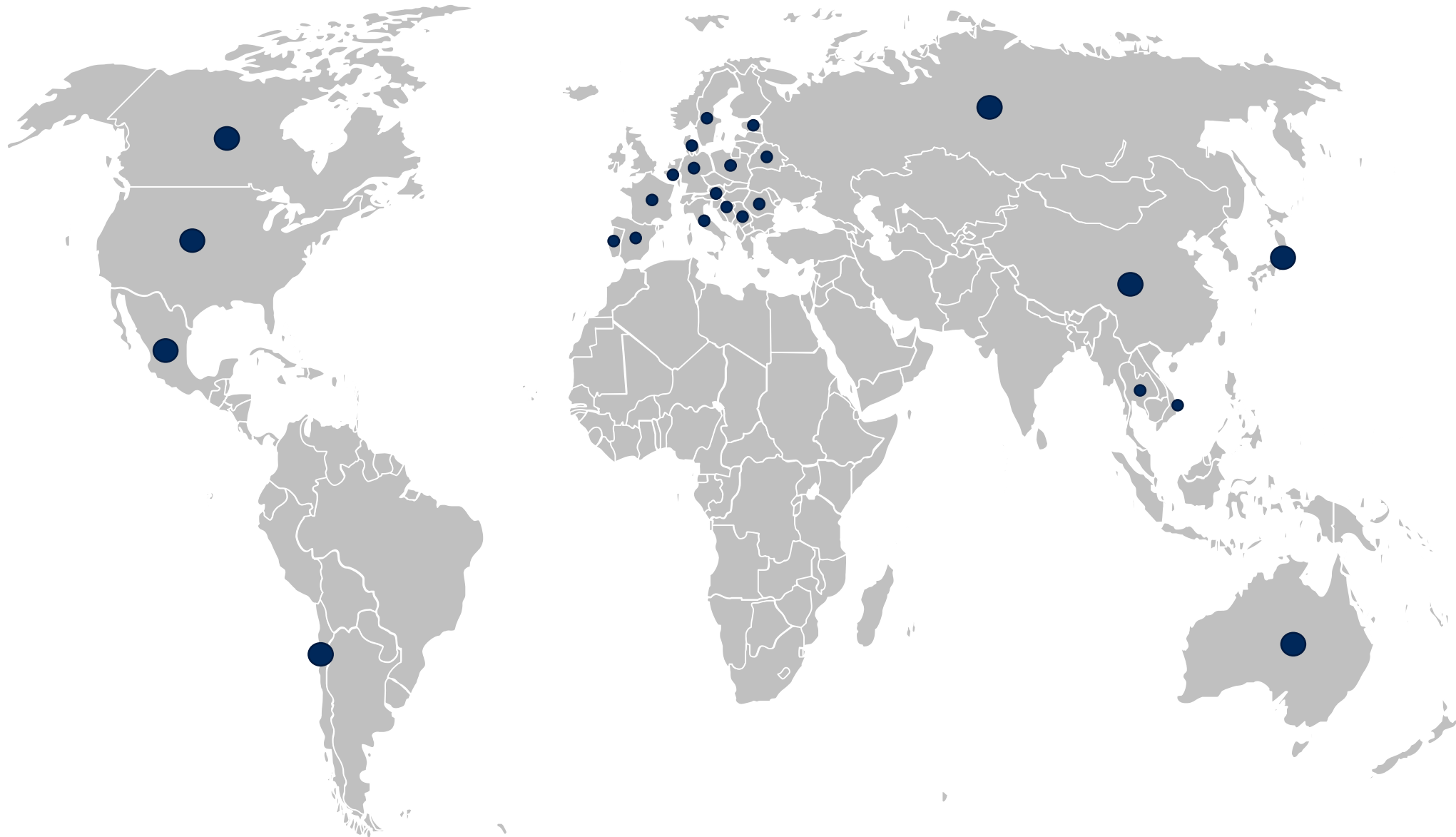
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Various articles currently under review at scientific journals

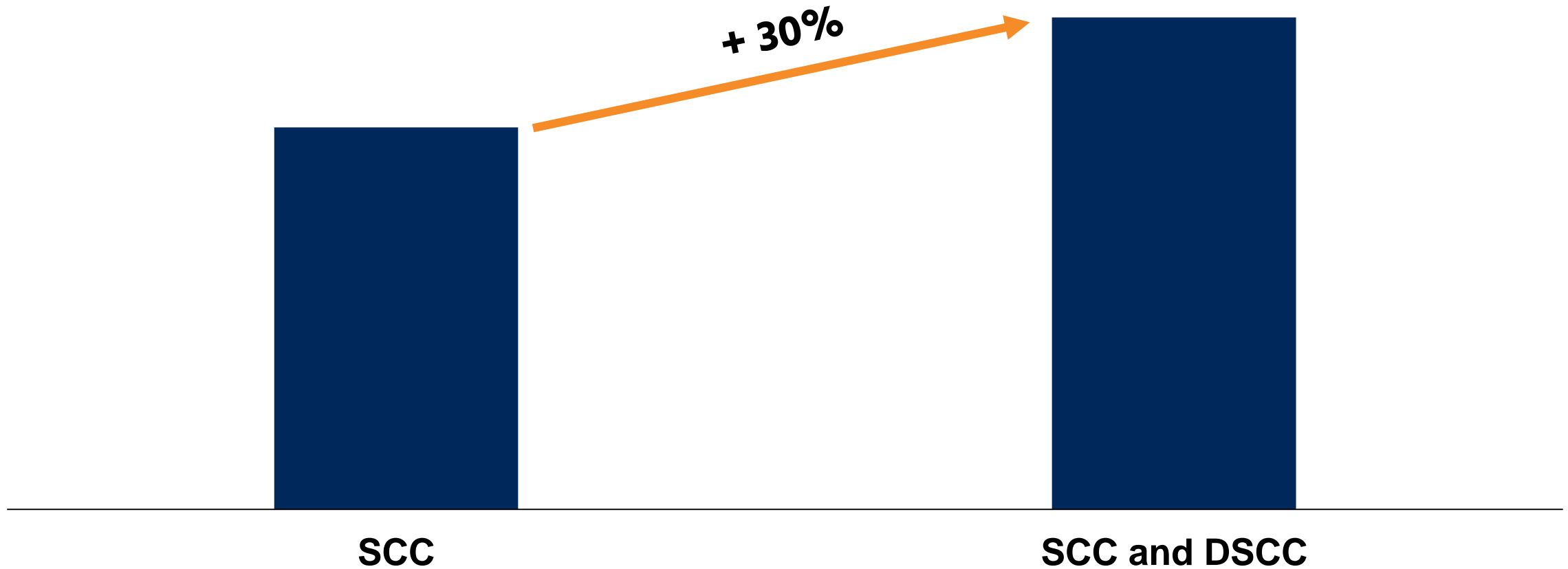
FOSSOMATIC 7 DC GLOBAL SALES OVERVIEW

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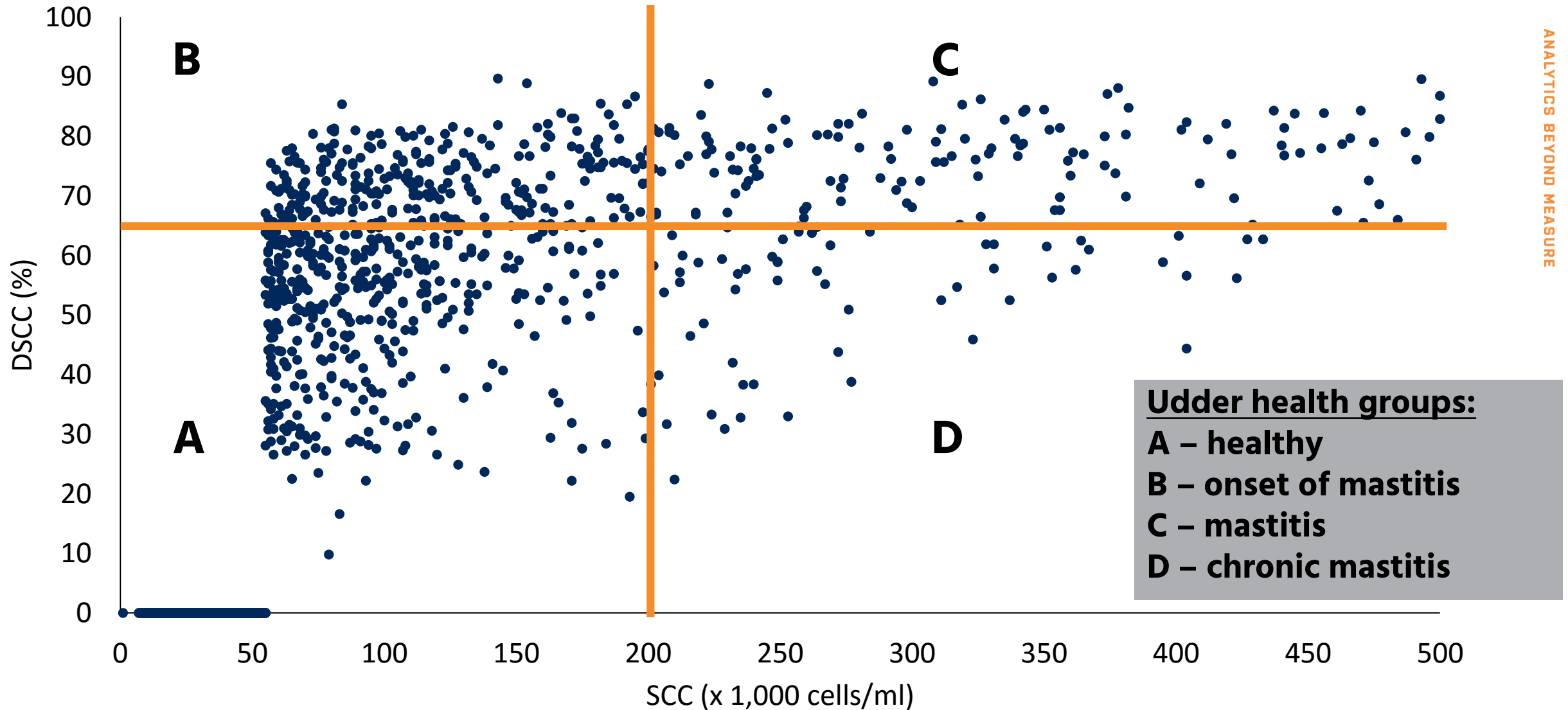
IDENTIFICATION OF 30% MORE MASTITIS CASES

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NEW WAYS OF MASTITIS MANAGEMENT

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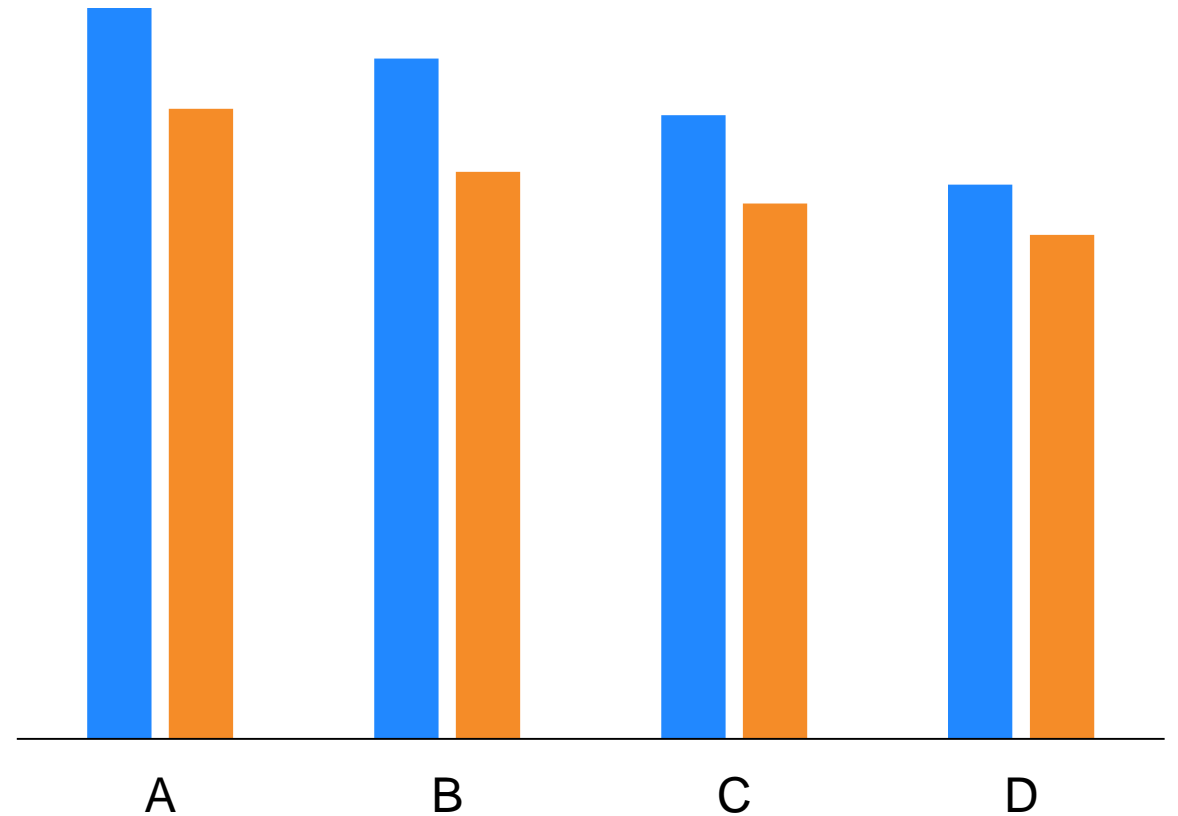
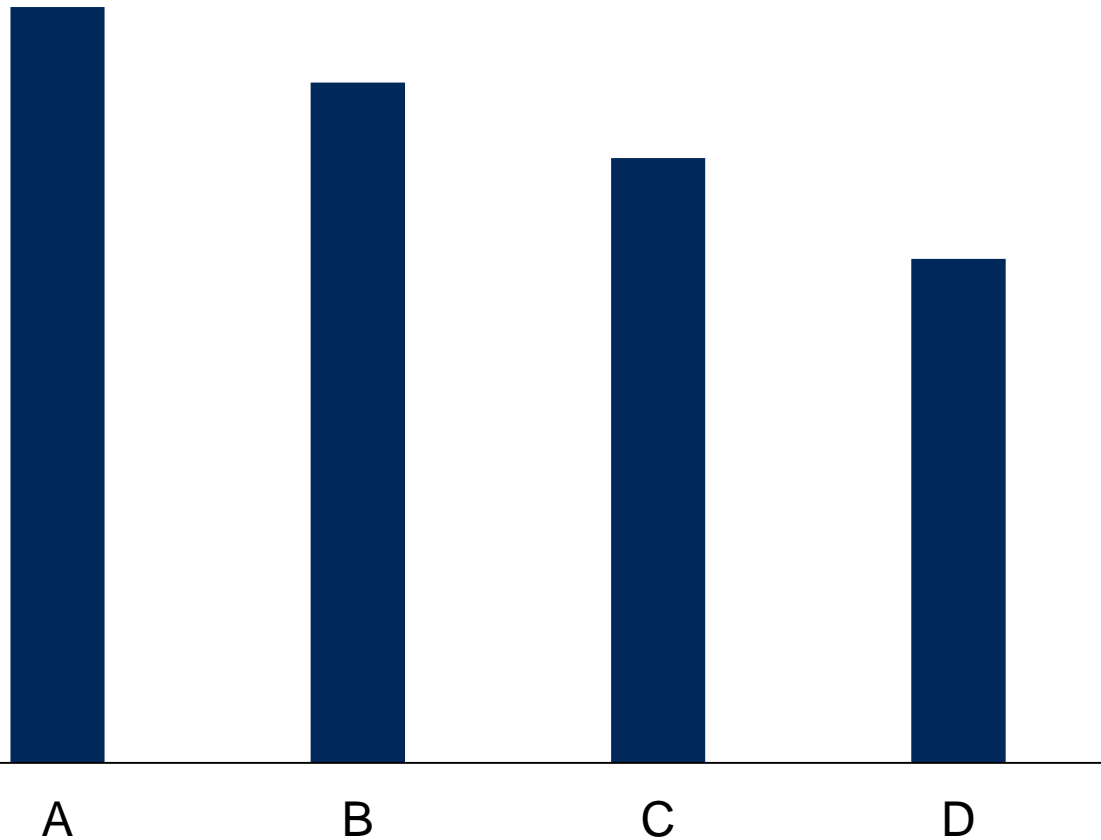
NEW WAYS OF MASTITIS MANAGEMENT

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Milk weight

Fat and protein

ANALYTICS BEYOND MEASURE



Udder health group

Udder health group

REAL LIFE EXAMPLE: ITALY

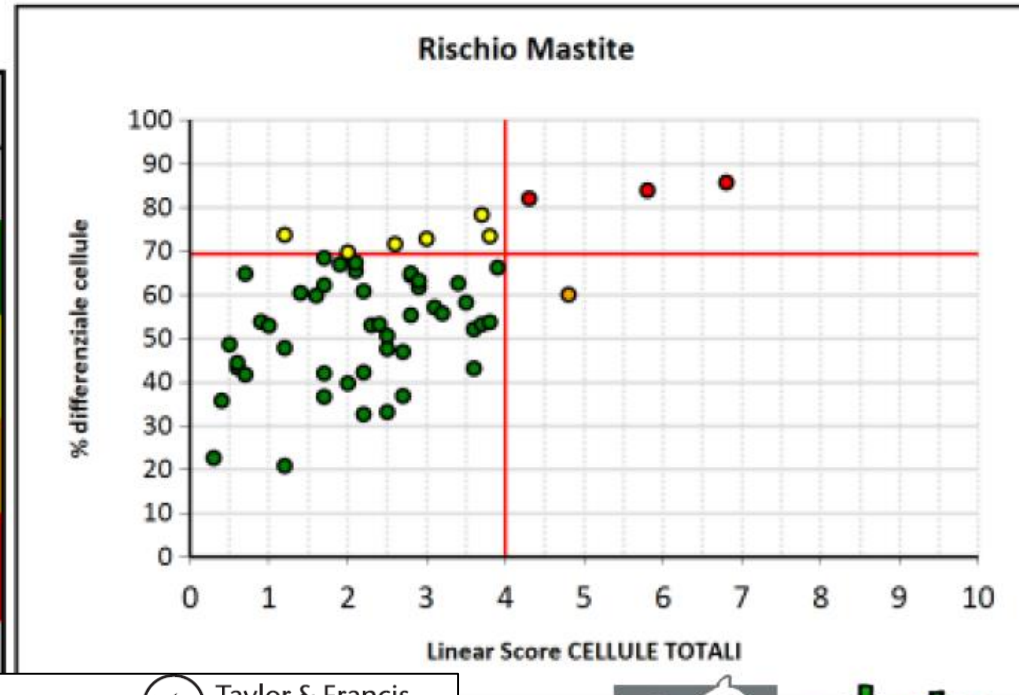
NEW UDDER HEALTH REPORT

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VACCHE STANCHE (> 200 gg Lattazione)

CELLULE TOTALI		CELLULE DIFFERENZIALI			
N° Vacche	%	N° Vacche	%		
Sane	51	93	Sane	45	82
			A Rischio	6	11
A Rischio	4	7	Subcliniche a rischio cronicità	1	2
			Con mastite subclinica/clinica	3	5
TOTALE	55	100	55	100	



ITALIAN JOURNAL OF ANIMAL SCIENCE
<https://doi.org/10.1080/1828051X.2018.1533391>



SHORT COMMUNICATION



Assessment of subclinical mastitis diagnostic accuracy by differential cell count in individual cow milk

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A MESSAGE TO TAKE HOME

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Comply with the need of dairy farmers to get better information as basis for herd management



New possibilities to improve mastitis management



From Science to Practise – the power of co-creation



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