

# Risk and protective factors of milk components on dairy herds days open in northern region of Antioquia-Colombia

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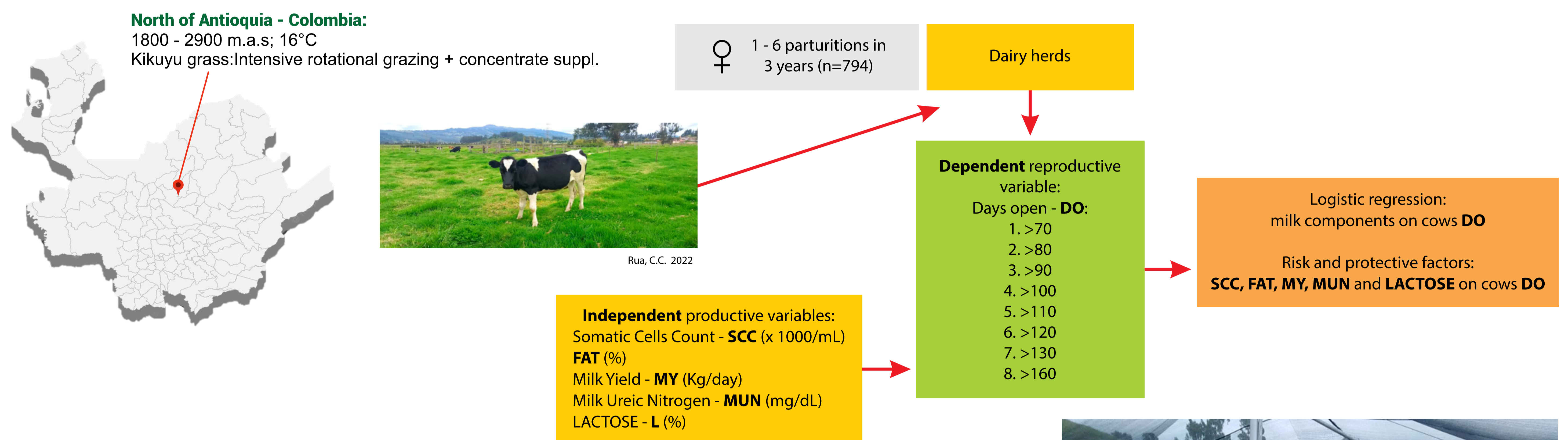
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**Introduction:** we focused on the hypothesis that there is a level of days open-DO, above which independent variables such as somatic cell count-SCC, FAT, milk yield-MY, milk ureic nitrogen-MUN and percentage of LACTOSE-L affect this reproductive index.

**Objective:** to estimate the MY, FAT, SCC, MUN and L, and to determine the probability of being risk factors to increase DO in dairy cows.

## Materials & methods



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**Results:** Average **SCC** and **MUN** increased with **DO**, whereas **MY** and **L** decreased in the assessed periods. **FAT** content was overall stable.

CDO	P-VALUE					
	INTERCEPTO	RCS	GRASA	MY	MUN	LACTOSA
70	0.000279	0.031389	0.579219	0.331796	0.014823	0.004616
80	1,83E-05	0.213880	0.274206	0.335872	0.015137	0.000133
90	8,47E-06	0,167	0,645	0,503	0,019	1,04E-05
100	2,14E-06	0,0419	0,3999	0,0338	0,0567	6,97E-07
110	4,89E-08	0,039899	0,017618	0,000122	0,086244	5,77E-09
120	1,07E-07	0,0139	0,00848	0,00244	0,01696	7,20E-10
130	1,66E-07	0,03387	0,00344	0,0216	0,01396	1,51E-11
160	5,56E+06	0,446918	0,057373	0,008191	0,000306	1,48E-12
Significancia	*	**	***			

Table 1. Logistic regression results of milk components effects on cows categorized DO groups (n=8). CDO: Categorized days open; DO: days open (days); SCC: Somatic cell count (x 1000/ml); FAT: (%); MY: Milk yield (Kg/day); MUN: Milk Ureic Nitrogen (mg/dL); L: lactose (%). Significance of p-values is indicated.

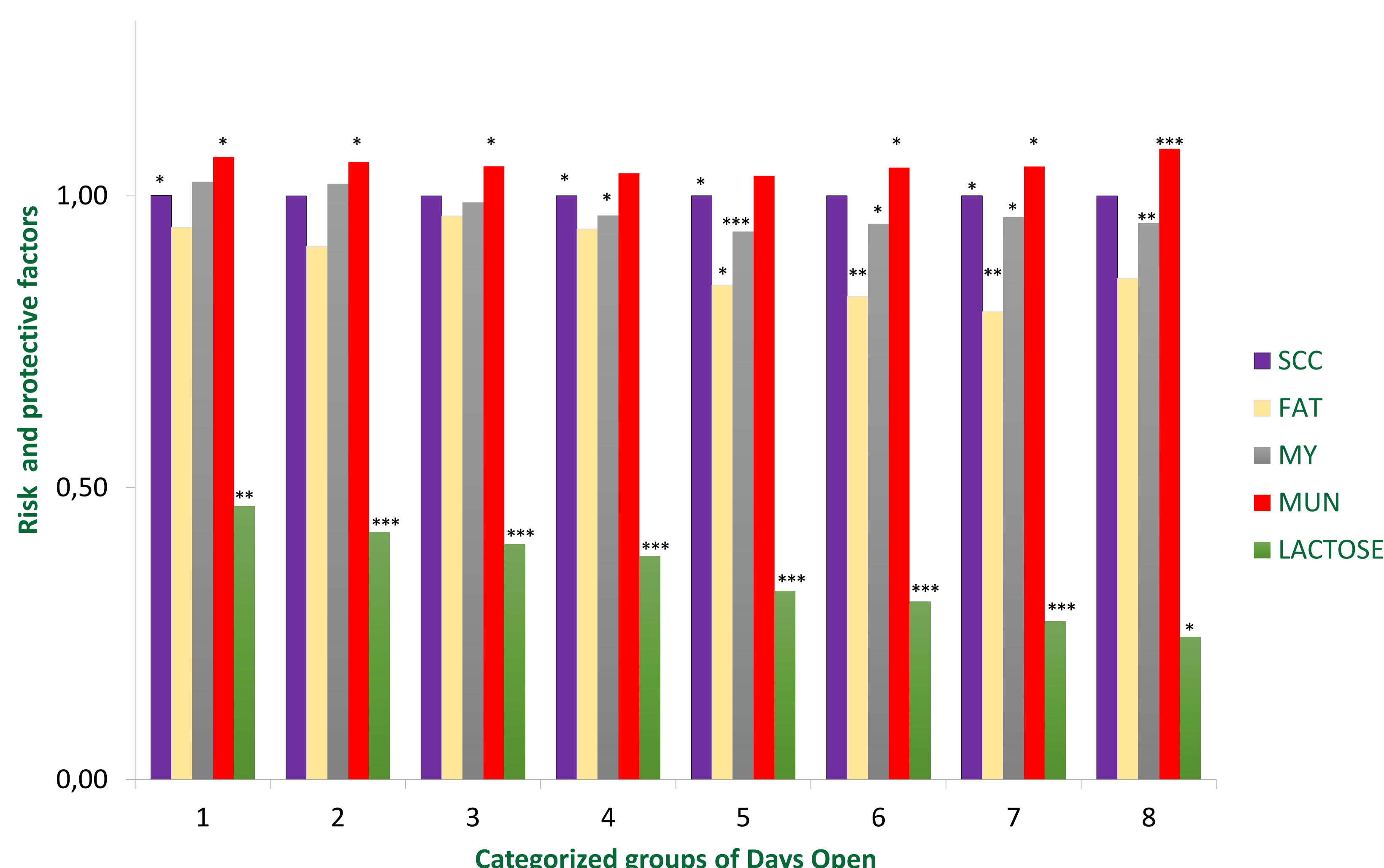


Figure 1. Risk and protective factors pattern of tank SCC, FAT, MY, MUN and LACTOSE according to logistic regression analyses. Significance (0,01; 0,001; 0,0001), \*, \*\*, \*\*\* respectively (table 1) according to the risk factor (above 1) or protective factor (under 1) at the specific DO group (1: >70; 2:>80; 3:>90; 4:>100; 5:>110; 6:>120; 7:>130; 8:>160).

## Discussion:

Desirable shorten DO after calving are significantly related to MY, L and fat concentration in milk. SCC and MUN should be recorded and controlled frequently in order to maintain/enhance the reproductive performance.

## Conclusions:

All milk components significantly affected categorized groups of DO. SCC and MUN were **risk factors** on DO. FAT, MY and L were **protective factors**.

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